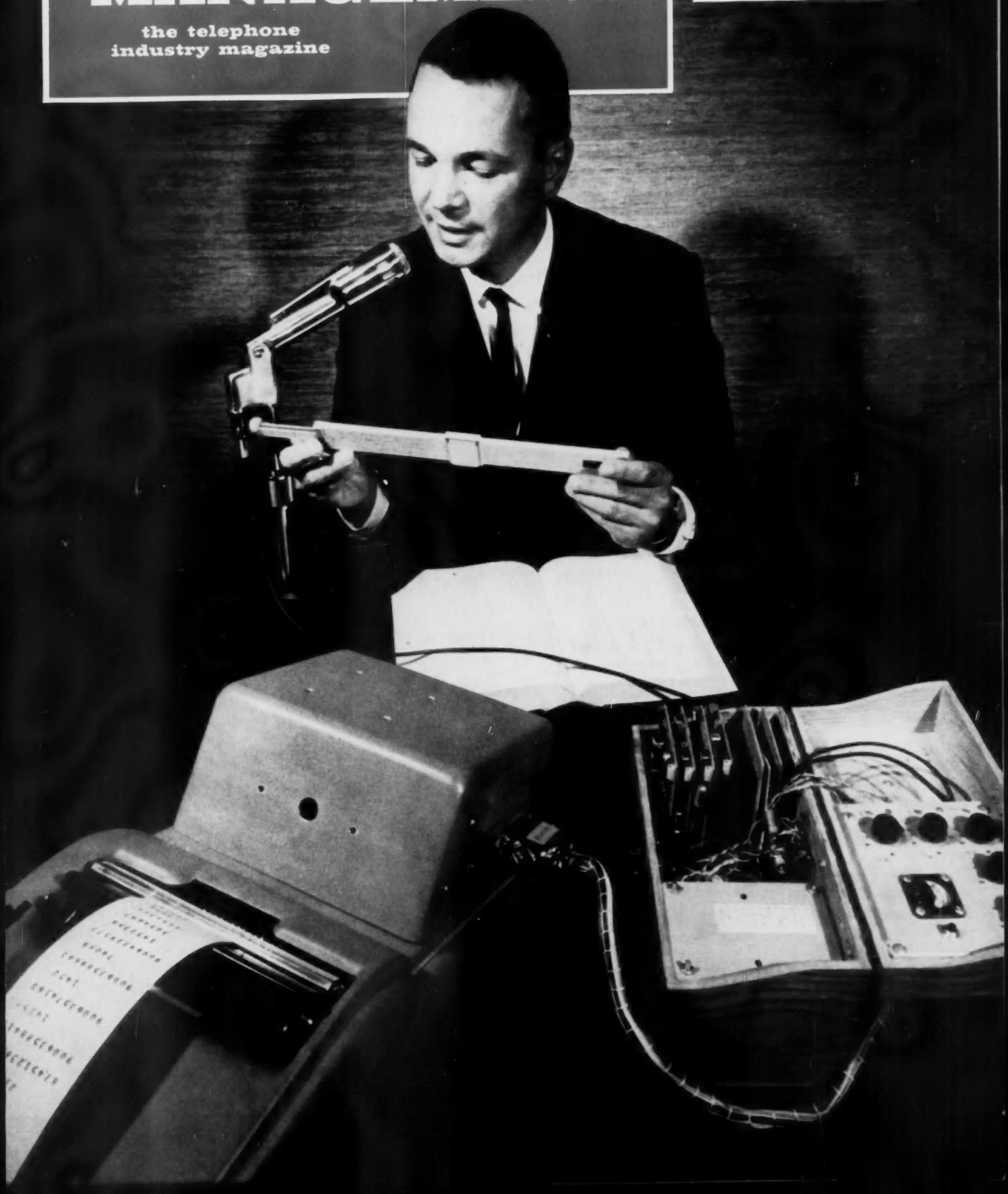
TELEPHONE ENGINEER & MANAGEMENT

the telephone industry magazine

December 1, 1961
50 cents



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"Shige" is one of our "Revenue Men" in Honolulu, Hawaii.

He grew up in a small sugar plantation town on the Island of Hawaii. His first goal was an education, and Shige completed the first phase at Laupahoehoe High School. He then joined the U. S. Army.

Immediately after his Army hitch, he set his sights on a college education. He earned a good part of his way through the University of Hawaii, and graduated in 1951.

His career field chosen, Shige immediately went to work gaining sales experience in several different product fields.

It was in 1957 that he joined General Telephone Directory Company as a sales representative in our Honolulu unit. Last year he was promoted to Sales Supervisor of the Honolulu unit.

Shige is a family man, and he and his wife have two young daughters.

Men like Shige Matsuda are an asset to any community. It's a common trait of the "Revenue Men" who work for the General Telephone Directory Company . . . and for you.

From A to Z, we can give you complete, quality directory service—sales, publishing and printing. Wherever you operate, our trained "Revenue Men" are nearby. They're working out of 35 strategic locations coast to coast.

Our "Revenue Men" act as telephone company representatives in their day-to-day contacts with your customers. They're not only salesmen—they are also good-will ambassadors for you, in their dealings with the public.

They're experienced hands at helping Independent Telephone Companies, both large and small. So why not let us build directory revenue and good will for you through our complete service? Write or phone if you'd like to discuss it—without obligation!

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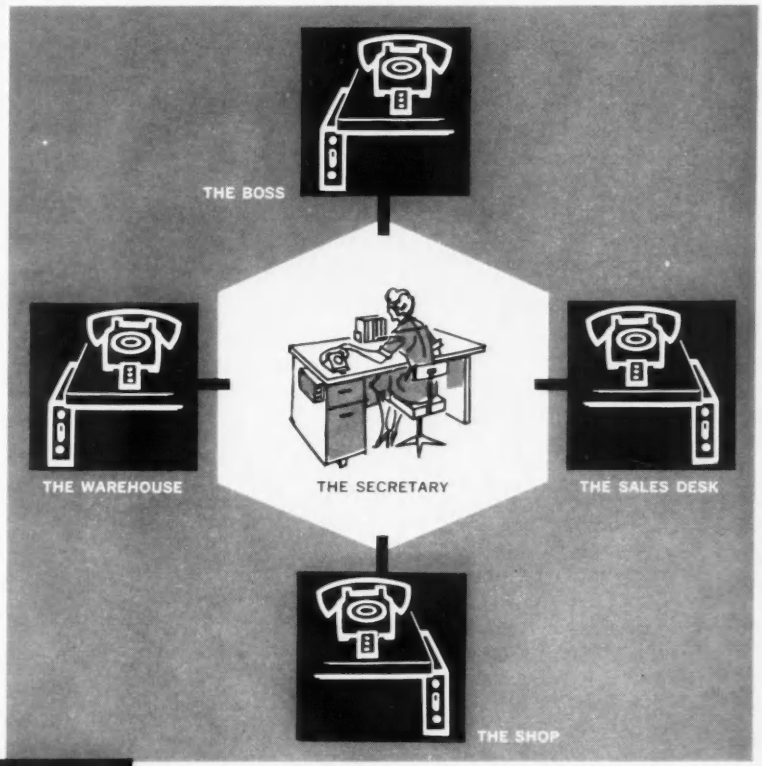

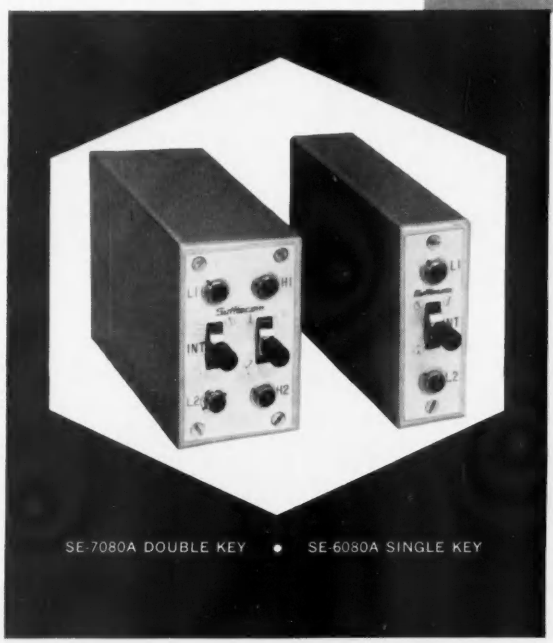

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THE TE&M COVER: — IBM engineer William C. Dersch demonstrates "Shoebox," an experimental machine that does arithmetic on voice command. He told the machine: "Seven plus three plus six plus nine plus five, sub-total," and 30 was printed out. This machine recognizes 10 digits spoken naturally to it (not voice code), as well as six control words instructing it to perform such arithmetic as plus, minus and total. The device instructs an adding machine to calculate and print out correct answers to simple arithmetic problems. IBM has no plans to manufacture this device, but the experimental machine could be the forerunner of future voice recognition machines. It was invented by Mr. Dersch at the San Jose, Calif., lab of IBM's Advanced Systems Development Division.

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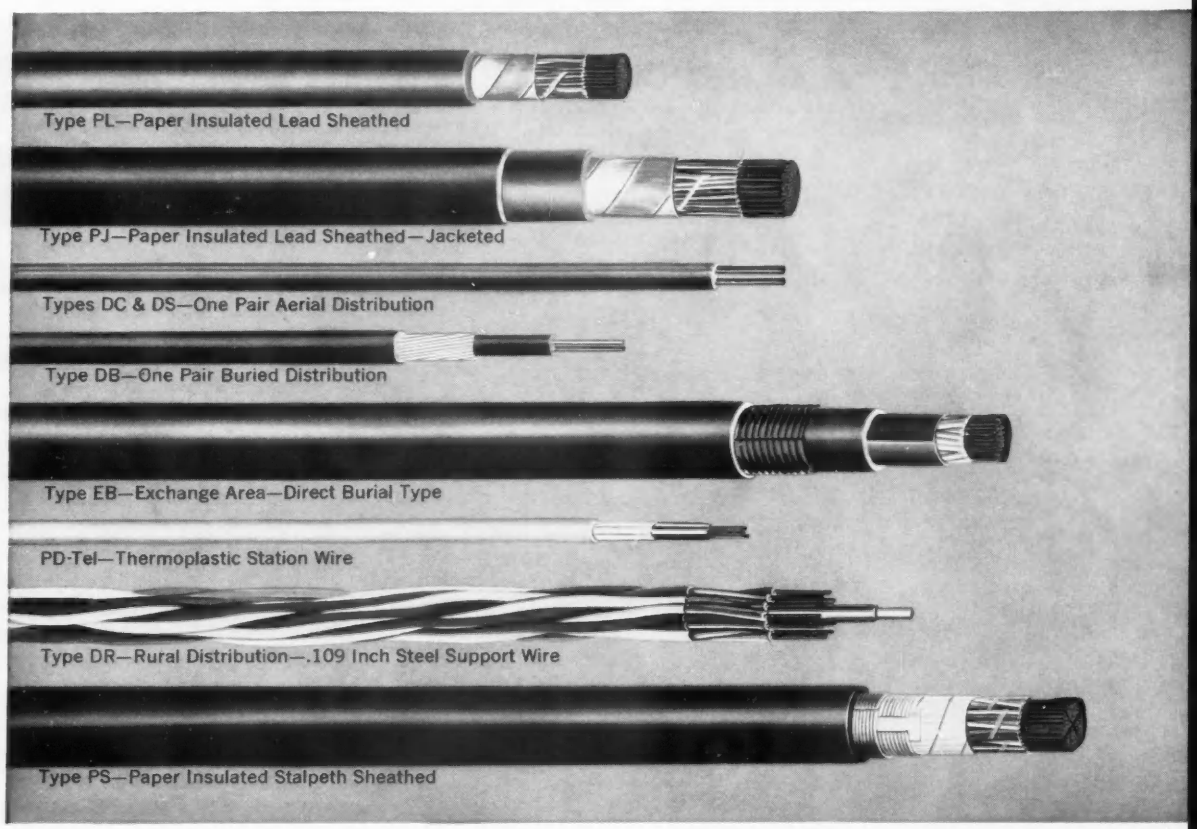
Type PL—Paper Insulated Lead Sheathed
Type PJ—Paper Insulated Lead Sheathed—Jacketed
Types DC & DS—One Pair Aerial Distribution
Type DB—One Pair Buried Distribution
Type EB—Exchange Area—Direct Burial Type
PD-Tel—Thermoplastic Station Wire
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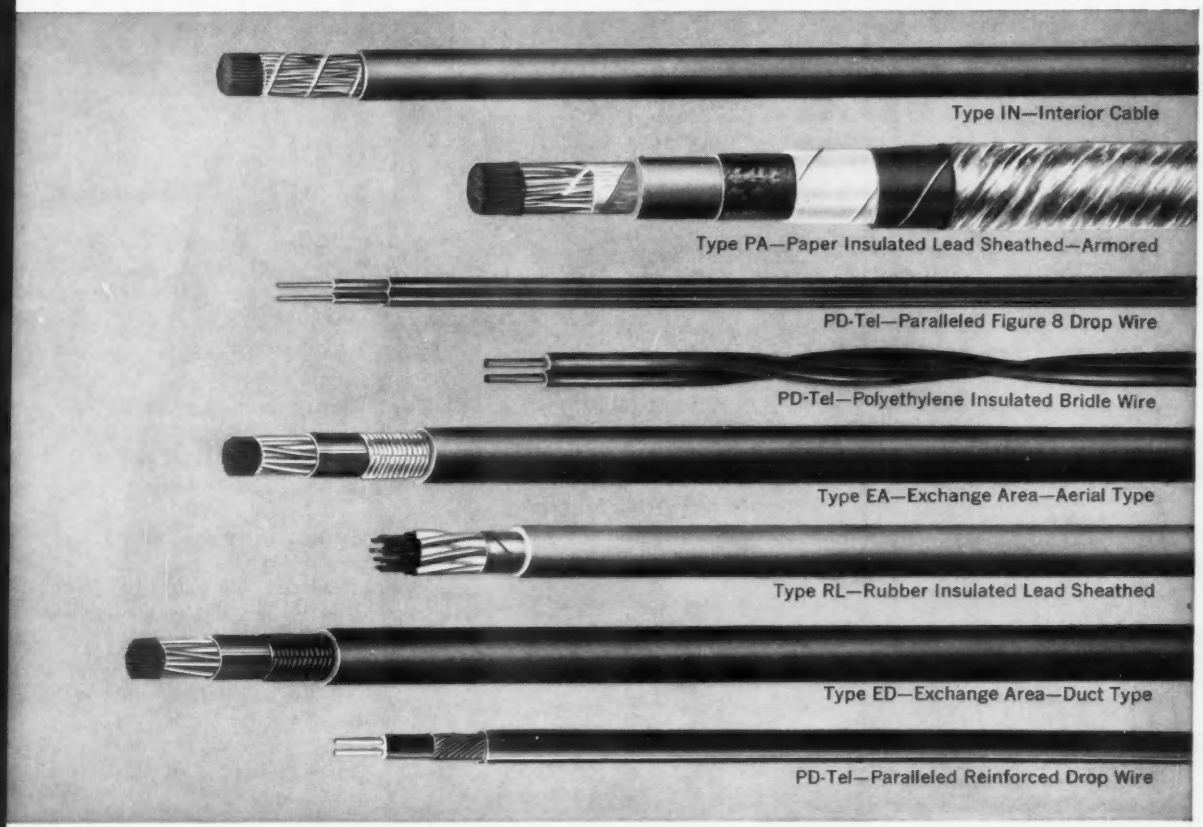
Type IN—Interior Cable
Type PA—Paper Insulated Lead Sheathed—Armored
PD-Tel—Paralleled Figure 8 Drop Wire
PD-Tel—Polyethylene Insulated Bridle Wire
Type EA—Exchange Area—Aerial Type
Type RL—Rubber Insulated Lead Sheathed
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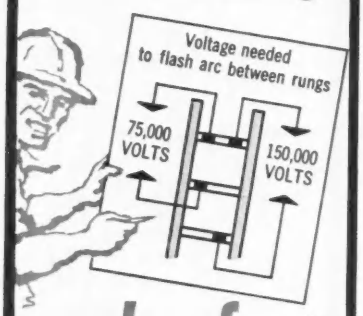
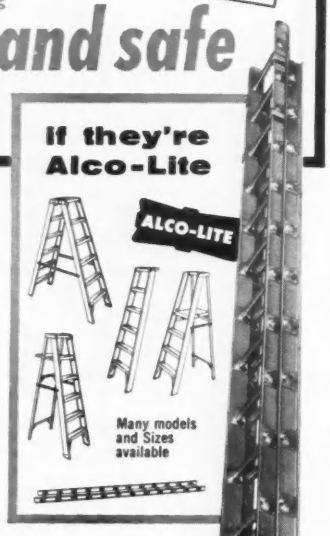


and safe



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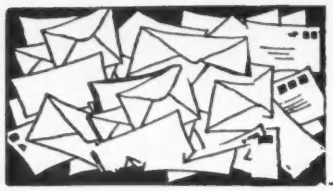

LETTERS to the editor

Thanks, Mr. Winters

To The Editor:—This is the first time since the convention that I have had an opportunity to write you with respect to your article in *Telephone Engineer and Management* of October 1st — "The USITA Story."

I want to commend your excellent portrayal of USITA in this story. I think it was timely and something that all of your subscribers and all of our members in USITA should know.

W. G. Winters,
President,
Texas Tel. & Tel. Co.,
Houston 27, Tex.

"USITA Story" Reprints

To The Editor: — I wonder if by any chance you may be thinking of running the historical story of Independent telephony in pamphlet form. It seems to me this is something many people within the industry would like to hold in their permanent files.

H. M. Stewart,
President, General Manager,
Standard Telephone Co.,
Cornelia, Ga.

Many readers have requested reprints of "The USITA Story" (See page 46, Oct. 1, 1961, issue of TE&M). We will have reprints available by Dec. 15. Prices will be: 1-5 copies, 50c each; 6-49 copies, 40c each; 50 copies or more, 35c each. Send your order to TE&M's Educational Div., 7720 Sheridan Road, Chicago 26, Ill.

"What Youth Doesn't Know"

To The Editor: — Your generous treatment of the "What Youth Doesn't Know" editorial in the September 15th issue of *Telephone Engineer & Management* magazine is most appreciated. In keeping with the published permission to reprint the editorial, it was used in the October 27th issue of the *NAM News.* The print order was 30,000 copies. Additionally 10,000 reprints of the *News* insert were made for use by NAM's 13 regional offices.

For your cooperation in working with our Chicago office staff and giving the story the fine treatment you did, please accept our thanks.

Harry E. Buck,
Director,
Sales Promotion Dept.,
NAM Member Relations Div.,
New York, N. Y.

They're on the Way

To The Editor: — We would like to obtain 10 reprints of the article by Guy L. Chilberg, outside plant engineer, American Telephone and Telegraph Company, New York, N.Y., entitled "Buried Cable Construction and Maintenance Problems" which appeared in the issue of *Telephone Engineer and Management* magazine dated Oct. 15, 1961. Will you kindly let us know if such reprints are available and what the charge for them will be.

V. H. Baillard,
Head, Outside Plant Apparatus Dept.,
Bell Telephone Laboratories,
Murray Hill, N. J.

Sorry no reprints — But we have sent you 10 sets of tear sheets. Hope they'll serve the purpose.

Information Coming

To The Editor:—This is with reference to your article regarding transistorized equipment protection on page 42 of the Oct. 15, 1961, issue. Having experienced quite a bit of trouble in transistorized equipment which we feel is due to high voltage peak, we were interested in your recommendation for using gas-type tubes for protection devices.

We wish to obtain a number of these tubes and would appreciate it if you would advise us where they might be procured and the type of tube used for this protection.

Peter C. Bakker,
Chief Engineer,
Central Iowa Tel. Co.,
Cedar Rapids, Iowa.

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The Outdoor Telephone Canopy (GP-2500, List 1) is a revenue builder in the daytime or at night. And it's constructed to last for years.

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The Outdoor Telephone Canopy can be pole, wall, or pedestal mounted. When pedestal mounted, the total height of the unit above ground is 88″ The dimensions of the unit are 56¼″ high, 30¼″ wide, and 39″ deep. *The GP-2500, List 1 is shipped complete with pedestal, ready to install.*

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coming CONVENTIONS

NORTH CAROLINA Tel. Assoc., Carolina Hotel, Pinehurst, N. C., Dec. 4-5.

NATIONAL Tel. Coop. Assoc., Jung Hotel, New Orleans, La., Jan. 15-17, 1962.

MINNESOTA Tel. Assoc.,Radisson Hotel, Minn., Minn., Feb. 25-28, 1962.

LOUISIANA Tel. Assoc., Monteleone Hotel, New Orleans, La., Feb. 28-Mar. 3, 1962.

KENTUCKY Tel. Assoc., Phoenix Hotel, Lexington, Ky., Mar. 6, 1962.

TEXAS Telephone Assoc., Sheraton-Dallas Hotel, Dallas, Tex., Mar. 11-13, 1962.

IOWA Tel. Assoc., Roosevelt Hotel, Cedar Rapids, Ia., Mar. 19-20., 1962.

OHIO Tel. Assoc., Deshler Hilton Hotel, Columbus, Ohio, Apr. 3-4, 1962.

WISCONSIN Tel. Assoc., Plankinton Hotel, Milwaukee, Wis., May 8-9, 1962.

INDIANA Tel. Assoc., Claypool Hotel, Indianapolis, Ind., May 9-10, 1962.

MISSOURI-KANSAS Tel. Assoc., Town House Hotel, Kansas City, Kan., May 21-22, 1962.

ILLINOIS Tel. Assoc., Abraham Lincoln Hotel, Springfield, Ill., May 24-25, 1962.

PENNSYLVANIA Tel. Assoc., Bedford Springs Hotel, Bedford, Pa., June 4-6, 1962.

NEW YORK Tel. Assoc., White Face Inn on Lake Placid, Whiteface, N. Y., June 11-13, 1962.

CALIFORNIA Tel. Assoc., Jack Tar Hotel, San Francisco, June 13-14, 1962.

WASHINGTON-OREGON Tel. Assoc., Sheraton Hotel, Portland, Oregon, June 21-22, 1962.

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PEC

ON THE LINE

Puregas Air Dryers are available with capacities for any specific system. The air dryers are fully automatic, completely integral units all employing the dependable, trouble-free refrigeration drying principle.

J31 Pressure Guard

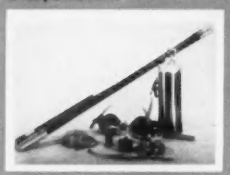
An around the clock pressure check, the J31 Pressure Guard (cable or pole-mounted) alerts crews to low cable pressure levels before moisture can start trouble.

Cable Pressurization Computer

A real time saver for performing the mathematical computations required for analysis of cable pressure systems. The PEC Pressurization Slide Rule lists pneumatic resistances for all gauges and pairs of cables. Computations can be made for flow, pressure drops, distance and pneumatic resistance, etc.

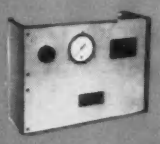
Semper•Seal

A permanent, clear cable splice and plugging compound, Semper•Seal forms a weather and gas-tight seal while providing perfect cable encapsulation.



Spray Leak Detection Kit

A complete, easy to use Kit makes possible the use of the spray leak test method of locating cable sheath breaks at low cost.

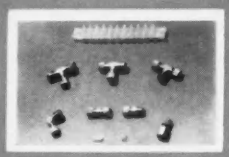


DP25A Dual Pressure Panel

Pressurized dry air can be supplied at two different pressures from Puregas Air Dryers by employing the DP25A Dual Pressure Panel or kit.

POLY-COR Tubing

Light, flexible, simple to install Poly-cor instrument tubing available with 3, 5, or 10 coded 14" tubes in moulded harness. Poly-cor tubing is used to pipe pressurized dry air from meter panels to cables.

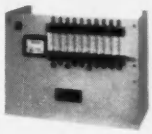


Miscellaneous Fittings

Assorted fittings are available from Puregas for making pressure tight Poly-cor and copper tubing connections.

AO-1 Automatic Oiler

The new AO-1 oiler maintains correct oil level and increases the oil capacity of any X-2 Compressor.

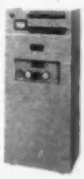


MP25A Meter Panel

Puregas Field Proven Meter Panels measure and distribute pressurized dry air to toll, trunk and exchange cables. Available with banks of 3, 5 or 10 air flow indicators, the MP25A will determine when maintenance is required on the outside cable plant.

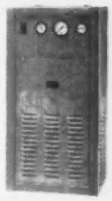
Model 600PM Air Dryer

Designed for outdoor operation, this pole mounted 600 std. cu. ft. per day unit supplements central office equipment as a booster pressure source on long cable runs. Also ideal for microwave transmission, railroad and bridge cable applications.



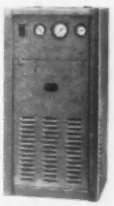
Model 600 Air Dryer

This economical "Packaged Pressure Source" was specially designed for small telephone exchanges, CDO's, repeater, toll cable stations, railroads and other various communication networks. This unit, providing 600 std. cu. ft. of dry air per day, is available with a factory mounted meter panel.



Model 750 Air Dryer

A 750 std. cu. ft. per day Pressure Source available to pressurize small to medium size exchange cable plants.



Model 1500 Air Dryer

This 1500 std. cu. ft. per day unit is sized to pressurize cable plants of medium to large telephone exchanges.

Model 5000 Air Dryer

This 5000 std. cu. ft. per day Dry Air Source will pressurize the cables of large telephone exchanges and central offices.

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- ☐ *Bulletin 110—Why Cables Should be Pressurized*
- ☐ *Bulletin 120—Cost Comparison—Dry Air vs. Nitrogen*
- ☐ *Bulletin 130—Cable Plugging Practices*
- ☐ *Bulletin 300—Puregas Meter Panels*
- ☐ *Price Schedule (Air Dryers, Meter Panels, Tubing, Accessories)*

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NEWSLETTER
TELEPHONE INDUSTRY

Prepared By The Editorial Staff of TELEPHONE ENGINEER and MANAGEMENT

ON THE 1st OF EACH MONTH ★ ON THE 15th OF EACH MONTH

Dear Sir: December 1, 1961

GROWING RELIANCE ON COMMUNICATIONS-ELECTRONICS CITED BY OCSIGO DEPUTY . . . Indication of need for more communications by Army today than decade ago is shown as current infantry division is authorized 40 per cent more items of communications-electronics equipment than similar division in 1950, Maj. Gen. Earle F. Cook, deputy chief signal officer, pointed out recently in address to National Security Industrial Association in Philadelphia.

General Cook said "Traffic capacity of our Starcom, or global, network has long been of deep concern . . . It provides communications support to forces and agencies in 73 different countries. The current traffic load on Starcom is 16,000,000 messages per year, which is 50 per cent greater than the peak year of World War II. This traffic load is steadily increasing and would balloon into a considerably greater volume in the event of an emergency."

He stressed importance of eventual use of communications satellites so capabilities of system can be "dramatically increased."

COMMON CARRIER MOBILE RADIO SYSTEM PLANNED AT INDEPENDENCE, KAN. . . . In domestic public land mobile radio service, Southwestern Bell Tel. Co. has requested FCC authorization for construction of 75-unit two-way mobile radio telephone system at Independence, Kan.

Other recent applications to FCC were received from Michigan Bell Tel. Co., proposing 50-unit system at Manistee, Mich.; Harrisonburg Tel. Co., 50-unit system at Harrisonburg, Va.; West Coast Tel. Co., 50-unit system at Everett, Wash.; and S & T Telephone Coop. Assn., 28-unit system near Brewster, Kan.

Earlier applications granted by FCC were those of Northwestern Indiana Tel. Co., Inc., for 50-unit system at DeMotee, Ind.; and Michigan Bell Tel. Co., one-way signaling service at Grand Rapids, Mich.

U.S.I.T.A. PLANS 6th TELEPHONE ENGINEERING CONFERENCE . . . Sixth annual Telephone Engineering Conference has been scheduled to be held July 1-20, 1962, at Michigan State University, East Lansing, Mich. This conference is sponsored by the United States Independent Telephone Association through its Subcommittee on Engineering Education.

Since its inception, the Telephone Engineering Conference has had the continued support of the telephone industry and has contributed considerably in furthering the training of telephone engineers. To date, 246 representatives from 82 companies throughout this country and from Canada and South America have attended the conference.

As in the past, registration for the conference will be limited to 60. A brochure describing the 1962 course will be mailed to USITA member companies. The brochure may also be secured by contacting John U. Jeffries, Coordinator, 105 Olds Hall, Michigan State University, East Lansing, Mich.

Please turn to page 16

MONSANTO POLYETHYLENE formulations are based on long experience in supplying the specialized needs of the Wire and Cable Industry. That's why you can always count on a correct answer to your specific insulation problem, when you call Monsanto Chemical Company, Plastics Division, Springfield 2, Massachusetts.

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MPE 10: Medium molecular weight natural, with non-discoloring antioxidant; primary insulation for communication, signal, and power transmission cables particularly where high speed extrusion in thin walls on small conductors is involved.

MPE 12: Medium high molecular weight black, with non-discoloring antioxidant; power transmission line and drop wire insulation, coaxial cable jacketing, general purpose (non-critical) jacketing.

MPE 11302: Medium molecular weight black, with non-discoloring antioxidant; power transmission line and drop wire insulation.

MPE 12203: High molecular weight natural, with non-discoloring antioxidant; primary insulation for telephone and power cable; insulation requiring superior toughness, stress crack resistance, and physical properties.

MPE 12253: Medium molecular weight natural, with non-discoloring antioxidant; primary insulation for coaxial cable, missile cable, and general insulation use.

MPE 14202: High molecular weight black, with non-discoloring antioxidant; jacketing for telephone cable including Alpeth and Stalpeth cables, power cable, and other cables requiring maximum stress crack resistance, toughness, and expected longevity in service; also weather-resistant primary insulation including Urban and Rural wire and buried distribution wire.

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- Code Call
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Optional Features (continued)

- Group Hunting
- Automatic Transfer
- Tie Lines
- Blind Operation
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- Direct Key Calling
- Executive Direct Line
- Trunk Traffic Restriction
- Secretarial Service
- Common Night Answering

TECHNICAL DATA

- PABX Line Loop Resistance: 1200 ohms including telephone
- Dial Limits: [illegible] pulses per second
- Operating Voltage: 48 Volts DC
- Cabinet Size: Height 6'6", Width 3'4", Depth 1'8"
- Cabinet Weight (fully equipped): 770 lbs.
- Cabinet Capacity: 50 lines 7 CDO trunks, 6 links

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NEWSLETTER TELEPHONE INDUSTRY

(Concluded from page 12)

NEWS HIGHLIGHTS . . . In Norwich, N. Y., C. E. Purple, treas., C & U Tel. Corp., announced company directors had declared: (1) 158th consecutive dividend on its $100 par value preferred; dividend of $1.12½ per share was paid Oct. 15 to stockholders of record Sept. 30; (2) 144th consecutive dividend on its $20 par value common; 30¢ dividend per share was paid Aug. 15 to stockholders of record July 30 . . .

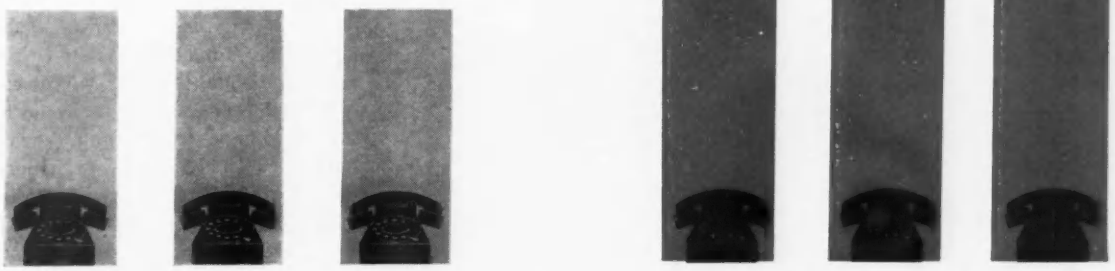
WITH THE STATE LEGISLATURES . . . In Pennsylvania Governor Lawrence signed into law a legislative bill providing penalties for making fraudulent use of credit cards, or obtaining telephone service through fraud. Under new law, penalties are graduated upward, depending on amount of service received illegally, to a $500 fine and one year in prison. Governor Lawrence said measure was necessary because of increased use of credit cards for all types of purchases . . .

ANCHORAGE PHONE SYSTEM BOND ISSUE TURNED DOWN . . . A proposed $4 million revenue bond issue for expansion and improvement of city-owned telephone facilities was defeated by voters of Anchorage, Alaska, in a recent election. The defeat marked what was believed to be the first time a revenue bond issue failed of approval in the city.

Newly elected Mayor George Sharrock said failure of the issue means a complication of telephone problems, "but we will work them out some way . . . It depends on what the people want in the way of service." The mayor said that should any proposal to sell the system fall through, he would not recommend a special election on another revenue bond issue "right away."

DATA FOR YOUR FACTS' FILE . . . Capital expenditures for 1961 are expected to total $34.5 billion, 3 per cent below 1960. Business investment for new plant and equipment touched a cyclical low of $33.5 billion in the second quarter, at a seasonally adjusted annual rate. A rise to $34.8 billion rate in the third quarter and to $35.9 billion in the fourth is anticipated with expenditures in the final quarter at a rate 7 per cent above the June quarter . . . Some form of air conditioning was installed in about one-eighth of all occupied U. S. housing in April 1960. Of the 6.7 million units which cool the air by refrigeration, almost 1.1 million were central systems. Warm-air heating in all occupied units increased from 27 per cent in 1950 to 41 per cent in 1960; only 1 per cent reported no heating equipment. For cooking, gas was used by 51 per cent; electricity use increased from 15 to 30 per cent of occupied housing. Liquefied petroleum gas gained to 13 per cent in 1960. Decreases were noted for solid and liquid fuels . . . Peru is maintaining an accelerated pace of development with both gross national product and foreign trade expected to reach record levels this year. By the end of the first 6 months of 1961 Peru had enjoyed nearly 2 years of financial stability, expanding industrial activity, and relatively steady living costs . . . Taxes collected by federal, state and local governments in fiscal years ending in 1960 totaled $113.1 billion or $629 per capita, compared with $99.6 billion in 1959. With other incomes, governmental revenues in fiscal 1960 totaled $154 billion, up $20.1 billion. Governmental expenditures of $151.3 billion compared with $145.7 billion in fiscal 1959. Indebtedness of all government units was $356.3 billion . . . Publicly reported cash dividend payments in the first 8 months of 1961 totaled $8 billion, 2 per cent higher than in the same period of 1960. August payments of $375 million were about the same as a year before. Corporate profits in second quarter rose $5.5 billion over the first-quarter cyclical low to $45.5 billion.

AVERAGE REVENUE PER PHONE..GOES UP..WITH FLEXICOM INTERPHONE!



Flexicom makes new customers from present subscribers!

Utilize the built-in demand for home interphones among your present subscribers, and watch revenues go up. Orbit Industries' speedy delivery cuts down on required inventories. A very small investment starts your revenues on their way up! Activated through the use of the telephone, the fully transistorized Flexicom Home Interphone System features **door answering, room-to-room intercom, nursery monitoring, no-hands operation.**

Flexicom encourages the installation of more extension phones . . . further increasing your revenues. Low cost means low rates, volume sales, and quick amortizing of your investment.

Flexicom is what your subscribers want! Flexicom is what you need . . . to keep revenues going up! Write or call today for complete details. Flexicom is marketed exclusively through International Teletronics Inc.

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Mostly About People You Know

Kittinger Gen. Plant Mgr. For Carolina Tel. & Tel. Co.

E. P. KITTINGER has been appointed general plant manager for Carolina Telephone & Telegraph Company, replacing A. N. Mason, deceased.

Born in Rocky Mount, Va., he was graduated from Virginia Polytechnic Institute with a BS degree. Kittinger joined Carolina Telephone in 1946 as a junior engineer in the Traffic Dept. He served as a supervisor in that department and as traffic manager for the New Bern and Fayetteville districts.

In 1956 Kittinger was transferred to the Plant Dept. as a staff assistant at Fayetteville and the next year was named Plant Dept. staff assistant in Tarboro. During this period Kittinger spent 10 months on special assignment with the Public Relations Dept. on rate case public and employe information. He moved to the Commercial Dept. as staff assistant in Tarboro in 1958 and became general commercial supervisor in 1959.

Edward A. McKee, Sr. Dies in Florida

EDWARD A. McKEE, Sr.'s many friends throughout the telephone industry were shocked to learn that he passed away on October 16 following a coronary occlusion.

After completing 42 years of service in the telephone industry, Mr. McKee had retired from his position of division plant manager of Southeastern Telephone Co., with headquarters at Tallahassee, Fla., in June of this year. At the time of his death he was 60 years of age. He and his wife, Mildred, were just completing an attractive new home in Clermont, Fla.

Mr. McKee first became associated with the telephone industry in March, 1919, when he joined the Plant Department of the Christian County Telephone Co., at Taylorville, Ill. In 1942 he became associated with E. I. DuPont as equipment supervisor at the Kankakee, (Ill.) Ordnance Works. Later he was promoted to plant supervisor in charge of communications and held that position until he started with Southeastern Telephone Co., in June, 1944.

Survivors, in addition to Mrs. McKee, include a daughter, Nancy Kinsey of Miami, Fla.; a son, Edward A. McKee, Jr. of Lincoln, Neb.; five sisters, Mrs. Ethel Oates, Ocalla, Fla.; Mrs. Jessie Brown, Mrs. Iva Brown, Mrs. Myrtle Thacker, and Mrs. Dorothy Spangler of Taylorville, Ill.; and a brother, Frank, also of Ocalla, Fla.

Central Iowa Tel. V.P. Covers Territory by Air

JOHN J. McINTOSH, vice president of the fast-growing Central Iowa Telephone Co., Cedar Rapids, Iowa, believes that one of the most important traits of a growing business — one really on the move — is that of being able to provide transportation for its management when and where it is needed.

Ten years ago the company name pretty well described Central Iowa Telephone Company's sphere of operations: A small number of counties clustered about Cedar Rapids and intertwined between regional and national exchanges and fellow Independents. Today, the company operates 85 exchanges serving 60,000 telephones in Iowa and Minnesota, and Vice President McIntosh uses modern aircraft to cover the company's operating territory.

McIntosh considered the use of airplanes when he was faced with driving 60,000 to 70,000 miles per year. The job was a natural for air travel. Most Iowa towns — even small ones — have serviceable airstrips, and many farmers maintain private strips across the state. Secondly, McIntosh could count on contacts in any town to provide the transportation once he arrived on the job. Most important, a week's work dwindled to a day or two.

Flying lessons, a license and a two-place aircraft turned McIntosh into a flying businessman. While competitors occasionally chartered an airplane, McIntosh was daily helping to push back the borders of Central Iowa Telephone Co., until it now serves 36 counties in two states. With main offices at Cedar Rapids, the firm is the largest In-

JOHN J. McINTOSH (left) vice president and general manager of the Central Iowa Telephone Co., Cedar Rapids, Ia., takes delivery of the company's fourth airplane, a Beechcraft Debonair. At right is HAROLD HALL, pilot, Wathan Flying Service.

BODY BY FISHER ROOMINESS

is another reason Chevrolet does better by your fleet dollars

[*right up through trade-in time*]

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This new Chevrolet gives you the man-sized, down-to-business roominess you want in a fleet car. In fact, Chevrolet went to the extent of using lifelike models to make certain all its '62 models have space to spare, wherever it counts, for relaxing comfort. That goes for head room, leg room, foot room—the works. Those big wide-opening doors are another Body by Fisher advantage for busy fleet schedules. And what Chevrolet does for people, it does for luggage. Nobody else in Chevrolet's field gives you a trunk like this one, with bumper-level loading plus a deep-well floor that lets you take aboard odd-shaped objects other cars just can't accommodate. Add to this all the traditional Body by Fisher advantages—its rugged durability, handsome hardy interiors, through and through insulation against road noise and weather—and you have some of the best reasons why Chevrolet keeps its value longer to bring top trade-in year after year. . . . Chevrolet Division of General Motors, Detroit 2, Mich.

Low-sill trunk design takes lift out of loading. Extra-wide lid allows easy loading from the side.

Foam-cushioned front seat, front arm rests, dual sun visors, cigarette lighter and glove box lock are standard on all '62 Chevrolet models.

'62 CHEVROLET

CHEVROLET

"Mostly About People"

(Concluded from page 18)

dependent telephone company in Iowa.

As the original two-seater was replaced by two four-place aircraft during the next few years, deal after deal was closed from small-town airstrips — in several cases before the competition was fully aware of the opportunity.

McIntosh, who recently took delivery on the company's fourth airplane, a Model A33 Debonair, has logged 2,600 hours on his private license.

Like Father, Like Son, Like Grandsons

FIFTY-SIX YEARS and five Ericsons have gone into developing the Minnesota Central Telephone Company from its original 60 subscribers served over single wire grounded lines and crank-type magneto phones to its present 3,000 subscribers served by dial with full area coverage by 10 exchanges.

Alfred L. Ericson, president of the company, looks *back* to the day his father, Elias M. Ericson, helped to organize the firm in 1905. "Then its name was the Hector Telephone Exchange," he says. "Later it became the Hector Telephone Company, and now it's the Minnesota Central Telephone Company."

A. L. ERICSON, left, president of the Minnesota Central Telephone Company, and his son, Harold, now general manager of the company, pose for photographs on pole crossarm almost a half century ago, when Harold was about 2½ years old.

HAROLD ERICSON, then aged five and now general manager of Minnesota Central Telephone Company, dons climbing spurs and scales telephone pole around 1905.

He looks *ahead* to younger generations: his son, Harold L. Ericson, now general manager of the company; and to two grandsons, Charles W. Ericson and James O. Ericson, both "active in improving service, the aim of the company for more than half a century."

But the telephone business has always been a tradition in the Ericson family. Why else would Alfred Ericson and his son Harold, both several years younger then, climb to the crossarms just for the enjoyment of having their photograph taken?

"I cannot vouch positively as to the age of Harold when the pictures were taken, but I would say he was about 2½ years old, when I had him with me on the crossarm, and about 5 years old when he put on a pair of climbing spurs, and climbed the pole by himself — never realizing that someday he would be general manager of the telephone company," A. L. Ericson says.

L. E. Rast Elected V. P. Of Southern Bell Tel. Co.

L. E. RAST, assistant comptroller of the American Telephone and Telegraph Company, has been elected vice president of Southern Bell Tel. & Tel. Company by the firm's board of directors.

Born in Athens, Ga., Rast now is vice president and comptroller of Southern Bell. He succeeds H. R. Stone, retiring after a career of 50 years.

Rast is a former Southern Bell executive who has been on assignment with A.T.&T. for the past two years. His career includes 24 years of experience in various positions, all in Southern Bell areas except his assignment in New York.

A graduate of the University of Georgia, he started with the company in 1937 in the Plant Dept. in Florida. He was transferred to the Accounting Dept. in Florida in 1938 and served in responsible positions in North Carolina, Alabama, Georgia.

From 1945 to 1950 he served in the Accounting Dept. in general headquarters. Made Georgia auditor in 1950, four years later he was transferred to Florida as Florida auditor. In 1957 he was appointed general accounting manager, Florida area, the position he held at the time of his appointment in 1959 as assistant comptroller of A.T.&T.

Stone began his telephone career in August 1912 as an office boy in Atlanta and advanced to responsible positions. He worked in various jobs in his first years in the Plant and Accounting Departments in Georgia, Louisiana, Mississippi and North Carolina.

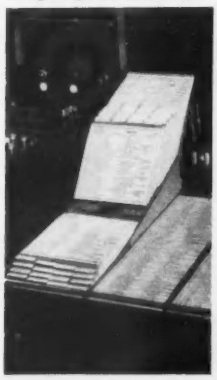
After service in World War I, he returned to the company in 1918, working in Atlanta and Charlotte, N. C. In 1925, Stone accepted a staff assignment with the American Telephone and Telegraph Company in New York. In 1930, he returned to Southern Bell Company headquarters in Atlanta as auditor of disbursements.

Stone was named general auditor in 1939 and became comptroller five years later. He was elected vice president and comptroller in 1952.

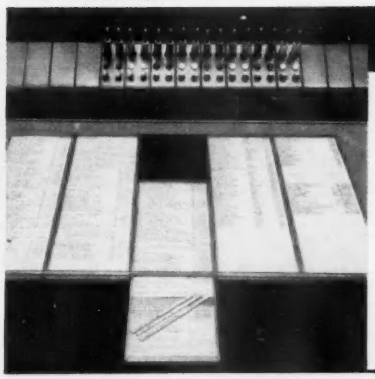
FASTER PBX SERVICE

ACME UNDER GLASS FLEXOLINE Panels and Multi-Card Bulletins speed reference to key numbers and long distance routings. Frequently called information stays right under the operator's eye on Flexoline Panels that slip beneath the plexiglass. Change any line just by typing a new Acme Visible Flexoline strip and snapping it into the proper place on the Panel. ■ Keep other key numbers, routes and rates at operator's finger-tips in an Acme Visible Multi-Card Holder, with hinged clear-view acetate pockets and large, durable index tabs. Any capacity. SEND COUPON FOR FACTS.

Multi-Card Bulletin Holders keep up to 4000 or more listings at operator's finger-tips.



Each Flexoline panel can be independently removed without removing plexiglass.



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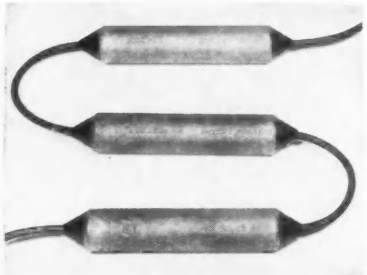
We'll be glad to send you more detailed information on Duct Applications. Ask for Bulletin DA/7.

THE DURIRON COMPANY, INC.
DAYTON, OHIO

DURCO

This is part of a DURCO Type G flexible anode assembly used in a distributed anode system as a means of accomplishing cathodic protection in congested areas.



INDUSTRY OBSERVATIONS

By L. A. GRITTEN

Interlingua

AN ARTICLE in *LOOK* magazine describes Interlingua as "an international language that works." That may be so, but it can only work where it is used. Like other "universal" languages, it has never approached general acceptance. Esperanto, a Russian contribution in 1887, claims one million speakers. Ido and Interlingua are more recent, but apparently not more successful.

An example of Interlingua given in the *LOOK* article is easy to translate. Anyone whose mother-tongue was enriched or perverted by the Roman Legionaires should be able to guess the meaning of this: "Interlingua es le resultado del longe cerca pro un methodo de passar le barriera del lingua." Unfortunately, the vast majority of our three billion earthlings speak languages that owe little or nothing to Roman invasions. Interlingua has no special appeal to them.

General use of an international language has become essential to peaceful progress. Our own industry furnishes an example. We are setting the stage for universal Direct Distant Dialing, whereby anyone, anywhere, may dial and talk to anyone, anywhere.

That must remain a dream while there are more than 100 languages, each one the medium of speech for anything from one million to several hundred millions of people, not to mention the hundreds of lesser languages and dialects.

Rapid interpretation techniques, such as "Tel-Interpret," may help a little; but they are a feeble substitute for direct, personal, lingual understanding.

Here is an opportunity for the United Nations actually to unite, to the incalculable benefit of civilization. When every child, in addition to his native tongue, is taught to read, write and think in an accepted universal language, we may be close to the realization of Tennyson's vision:

". . . the battle flags were furled,
In the Parliament of Man, the
Federation of the World."

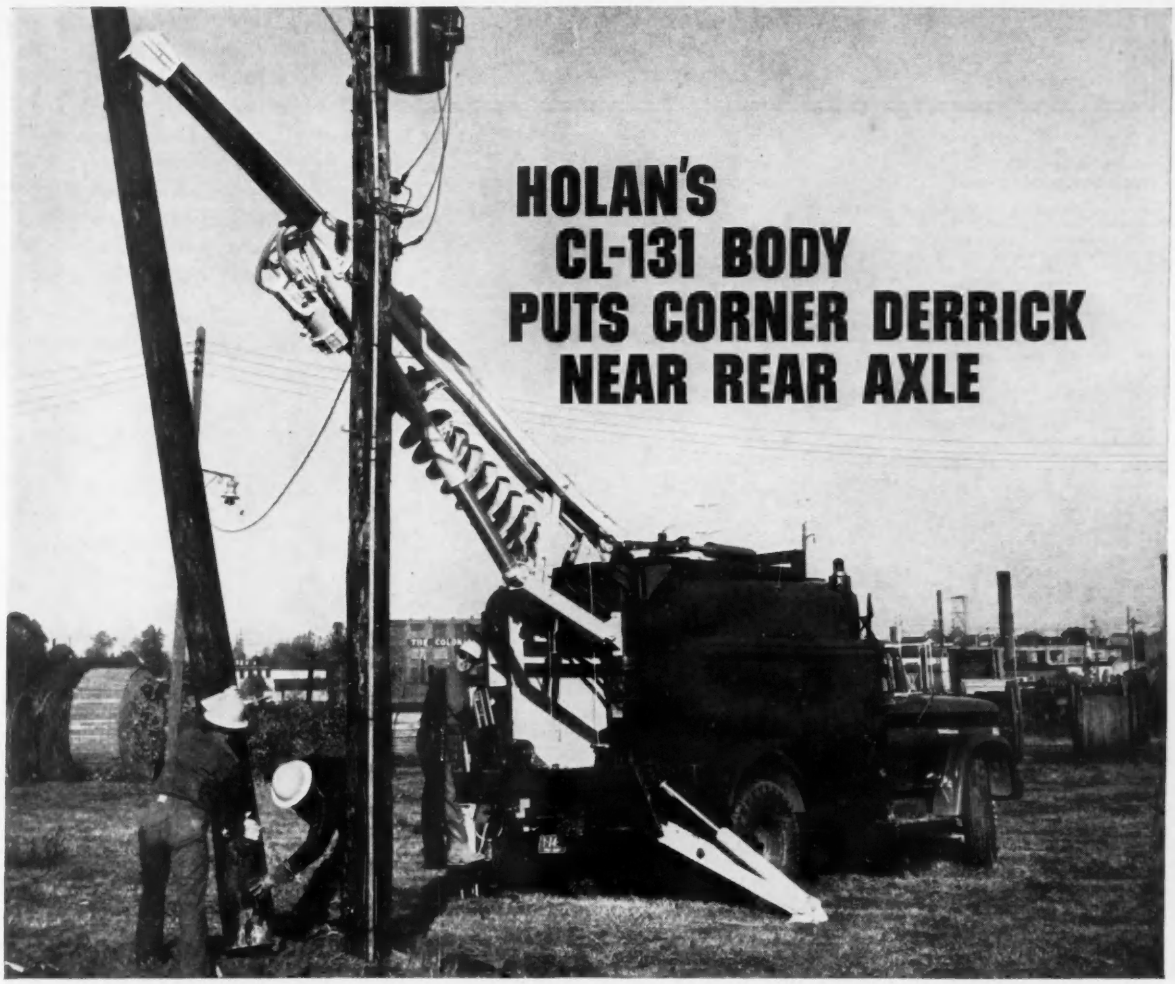
Our Greatest?

WHO WAS the greatest man ever to work in the telephone business? If public popularity were the measure of greatness, we would nominate Clark Gable, who once worked as timekeeper and lineman for the Pacific Telephone & Telegraph Company, in Portland, Ore.

On the basis of wealth, the answer might be Aristotle Socrates Onassis. He was a telephone man in Argentina, long enough to learn the language and discover greater opportunities elsewhere.

If a genius for unethical acquisition of electric utilities is any criterion, perhaps Samuel Insull should be nominated. More than 80 years ago, he was an operator in the first telephone exchange in London.

A more likely contender is George Bernard Shaw. From November, 1879 to July, 1880, Shaw worked on "Way Leave" (right of way) for the Edison Telephone Company in London. (He was contemporary with Samuel Insull, but did not know him.) He became manager of his department. Then the Edison and Bell interests merged, later to be absorbed by the post office. Shaw dropped his telephone career and became,



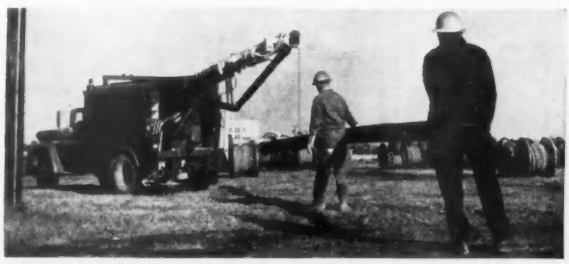
HOLAN'S CL-131 BODY PUTS CORNER DERRICK NEAR REAR AXLE

New Unit Mounts on 84" Chassis, Yet Stable Enough for Pole "Walking"

Holan's new CL-131 Body/7500 Corner Derrick Unit is a husky little heavyweight.

Short and compact, the body mounts on an 84" CA chassis — and the centerline of derrick rotation is less than 44" from the centerline of the rear axle. By "bobbing" off the rear, the center of gravity automatically shifts forward, making it possible to handle heavy derrick work with or without use of the hydraulic stabilizer jack.

In fact, long and hefty poles can be "walked" to position with the unit, set and aligned without use of pike poles.



And the compartmentation is ideal for light line construction or maintenance. On the right side, there are shelves with adjustable partitions, compartments for ropes and climber belts, a water cask, a thru box for long tools, a crosscut saw holder, and a rubber goods box in the superstructure that opens to the inside of the body.

On the left side, there is a horizontal compartment with drop doors and full-length shelf partitioned for miscellaneous equipment. And there's a left-hand lower box for heavy tools.

Here is a compact workhorse of a unit . . . one that will save time, maneuver easily and do a multitude of line construction and maintenance tasks. Call your Holan Field Representative . . . or write us today . . . for complete information.

"Walking" a pole is an easy task for Holan's CL-131/7500 Corner Derrick Unit which mounts on an 84" CA chassis.

Holan Corporation, 4100 West 150th Street, Cleveland 35, Ohio

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Stimulates the development of modern approaches to the design and evaluation of new communication systems by defining a skeleton for the needed discipline and discussing major unsolved problems. Emphasis is on methods of applying mathematical models and techniques to the design, analysis, and evaluation of reliable systems. **Edited by Elie J. Baghdady, Mass. Institute of Technology. 180 pp., 129 illus., $12.50**

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A clearly written practical guide to lightning protection covering the protection of electrical systems and equipment used in transmission and distribution installations, railways, industrial plants, mines, etc. Shows the nature of lightning and its effects, means of protection, and more. **By Edward Beck, Westinghouse Electric Corp. 310 pp., 149 illus., $9.00**

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A fundamental guide to the basic problems in the transmission of information, stressing the unifying principles of underlying modern information transmission systems. Emphasis is on the two fundamental limitations to the transmission of information—nonzero time response or finite bandwidth, and noise. In these pages you are given a unified approach to the principles and limitations of information transmission systems. **By Mischa Schwartz, Polytechnic Institute of Brooklyn. 461 pp., 310 illus., $11.75**

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according to his worshippers, second only to Shakespeare in the roll of the world's literary intellects.

Doubtless there are many others who should have a place in our nominations. However, our vote will still go to Alexander Graham Bell. What he did will forever outlive the glory of any of his successors in the business he created.

Communications Breakdown

TWENTY YEARS AGO we suffered our greatest military tragedy. For decades to come experts will argue inconclusively as to who in the upper ranks of authority were to blame for the slackness that made possible the Pearl Harbor disaster.

At the lowest level, there is little doubt about what happened — and what failed to happen. On Dec. 7, 1941, at Opana in Oahu two young soldiers were watching the recently installed radar. They saw two "blips" and promptly reported them. (These were scouts ahead of the main Japanese flight.) Their officer ignored them. He told them to close down the station for the day; but as interested learners they continued to observe.

Soon they saw the radar blips of an enormous flight of planes. Again they reported. Again their officer on duty ignored their report and told them to "forget it."

Roughly 45 minutes later the Japanese planes were over Pearl Harbor. Our Pacific fleet was practically wiped out and some 3,500 soldiers, sailors and civilians were shot down like clay targets at a fair.

That 45-minute radar warning should have sufficed to put Pearl Harbor in readiness to repulse the murderous thrust. It was perhaps the most costly and humiliating communications breakdown in all history.

SUBMIT YOUR PROBLEMS

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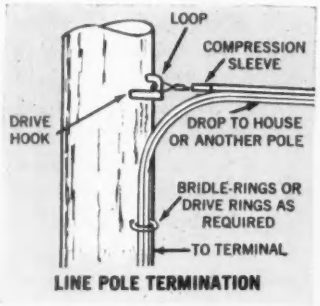

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SEND YOUR PROBLEMS TO TE&M

A glance through the mail received daily at TE&M's office is enough to prove that readers all over the world bring their problems and questions to TE&M. And we're happy they do. Believing that the questions and problems presented by TE&M readers, and the answers prepared by TE&M's editors will be of interest and value to all readers, we have developed this TE&M feature, and we hope you will use it whenever you need a fast correct answer to a question, or a solution to some operating problem. Send your questions to: *Editor, TE&M, 7720 Sheridan Rd., Chicago 26, Ill.*

QUESTION: *We are considering use of Figure-8 cable in our plant. However, we've been told one problem with this type of cable is corrosion of the messenger strand due to water getting inside the plastic coating under the strand.*

We understand this corrosion is much more severe than on exposed strand on regular lashed cable, because the plastic covering holds the water in constant contact with the metal strand and causes an accelerated corrosion effect.

ANSWER: Cable manufacturers have solved this problem by applying a flooding compound to the strand in extruding the Figure-8 cable. This compound fills the interstices of the strand and effectively prevents contact of moisture with the metal.

We don't believe you'll have corrosion problems with a type of cable treated in this way. Figure-8 cable is becoming popular with telephone companies, because its make-up greatly simplifies installation and reduces labor costs.

QUESTION: *Can you give me information on duct rodding with compressed air? We need a fast, effective method of rodding our ducts so cable can be pulled into them.*

ANSWER: Several systems have been developed for rodding ducts by compressed air or gas. One rodding method makes use of two funnel-shaped rubber cups spaced apart on a shaft and a pneumatic plug at the end of the duct to prevent the escaping gas from flowing back.

When compressed air or gas is admitted through the pneumatic plug, it causes the plug to expand and seal off the gas. The double cup device is propelled through the duct by the expanding gas, bringing with it a nylon rope which passes through a hole in the pneumatic plug. A special reel enables the nylon rope to be unreeled at 100 ft. per second. The traveling device will pass by small obstructions. Should a large obstruction be met, the instrument can be pulled back with the rope.

Another device of simple construction resembles a rocket in shape and carries a reel of nylon line in conduits ¼ in. and larger. An expanding plug at the transmitting end confines escaping gas to the conduit and forces the rocket-shaped device ahead to the other end, unreeling line as it's propelled.

QUESTION: *We have a problem with our emergency generator. Our central office is near a restaurant, and the generator is in a back room of the office. Whenever we test the generator or it goes into operation on commercial power failure, fumes from the generator seep into the restaurant. People complain of odor and noise. Can you suggest a simple remedy?*

ANSWER: Although you haven't given details of the generator location, we feel sure the trouble from the fumes is due to an improperly located vent pipe for the exhaust. It's possible the vent pipe is stuck through the wall at a low level, so the exhaust coming out doesn't rise into the atmosphere but flows along the side of the building and into the restaurant through the kitchen ventilating fan.

The remedy is to carry the vent pipe up to and above the roof level of the building. At this height, the exhaust will rise into the atmosphere and be dispersed.

As for the noise problem, be sure you have an adequate size muffler of good design and be certain it's in good condition. If vibration from the engine can be noticed in the restaurant, rubber mounts will help reduce vibration.

QUESTION: *Will you explain how person-to-person direct dialing may be possible?*

ANSWER: This calling method is quite new and is presently undergoing trial. Available information indicates the procedure (in a Bell office) is as follows:

On person-to-person, collect, or credit card calls the customer dials a special access code, then the area code (when required) and the called number. After dialing is completed, an operator is brought in to the connection to get the called party on the line, obtain acceptance on a collect call, or secure a credit card number. She depresses two keys to record the class of call on the tape and start the timing. The operator is then dropped out of the circuit and the call continues like any DDD station-to-station call. In the case of a credit card call, the operator prepares a memo ticket showing the card number which is later matched with the AMA ticket.

In the Independent telephone field, several manufacturers are studying the feasibility of this type of system, and there are various ways of handling the person-to-person distant dialing calls. The opinion seems to be that operator savings on these calls will be limited because of the work time required and the diminishing proportion of such calls. In addition, the regular toll switchboard will still be required to handle non-dialable traffic, abnormal load conditions, and assistance calls.

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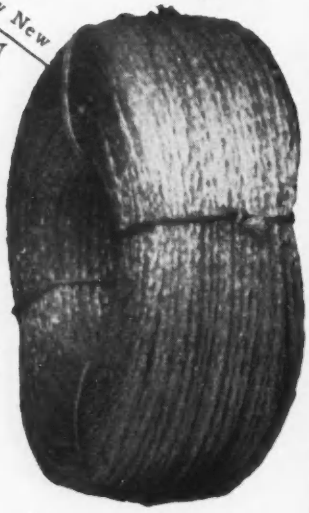

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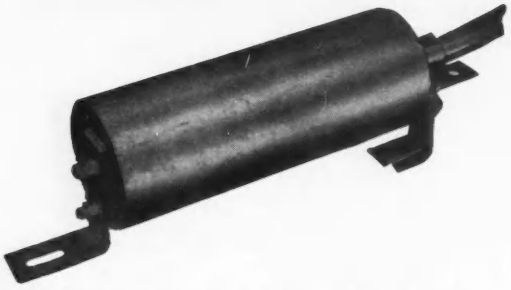

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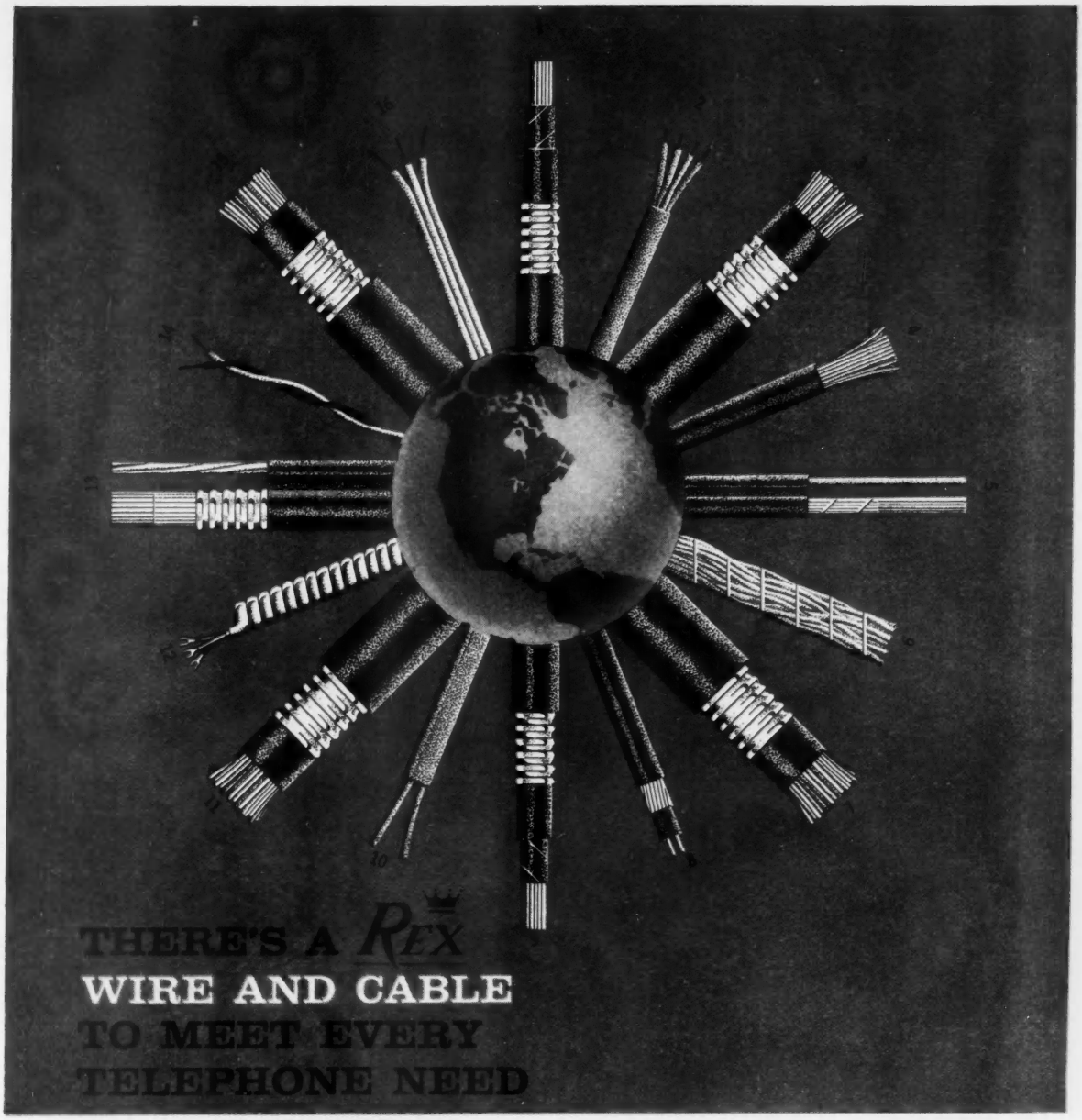
50 YEARS AGO IN T E & M

■ Sarah Elizabeth Brown told her readers: *"The condition of the country remains unchanged. The price of eggs and butter is creeping up. The dry summer drove the feeders into an early market, and the stuff that goes out now is choice, scarce and high-priced. The turkey trust will bring out their stocks at about 25 cents. And we'll be thankful our birds don't cost twice that much."*

■ Daniel D. Drawbaugh, who claimed to be the original inventor of the telephone, died at his home in Harrisburg, Pa., at the age of 84. He conceived the idea of electrical transmission of speech in 1860, and in 1870 claimed to have invented the magneto-transmitter.

■ Roger W. Babson stated: *"It is found that the earnings of telephone companies are less affected during periods of depression than the earnings of any other class of corporation . . . Telephone earnings are the most stable of any class of public utility corporation earnings, and therefore the securities of certain telephone companies should be attractive to most investors . . ."*

■ When Dr. Sun Yat Sen, Chinese anti-royalist leader, was in Chicago, he used the automatic telephone and a secret Chinese directory that no American could hope to decipher. The directory was written in Pekinese so worded it resembled the code used in long distance cable. With the telephone, Sun Yat Sen transacted his business and shortened his intended two-week stay to two days. Fearful of U.S. secret service agents and mindful of the $50,000 reward offered by the Chinese government for his capture, he confined operations to the phone.



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2	IPJ	Jacketed Inside Station Wire	—
3	ADCP	Aerial Exchange Cable	REA-PE-22
4	D	Inside Wiring Cable	—
5	8RDW	Figure 8 Rural Distribution Wire	—
6	RDW	Rural Distribution Wire	REA-PE-15
7	ADCP	Aerial Exchange Cable	REA-PE-22
8	PBW	One Pair Armored Burial Wire	REA-PE-24
9	DBCP	Direct Burial Exchange Cable	REA-PE-23
10	OPDW	One Pair Aerial Distribution Wire	REA-PE-17
11	ADCP	Aerial Exchange Cable	REA-PE-22
12	—	Retractile Cords	—
13	AS48	Figure 8 Aerial Exchange Cable	—
14	IP	Inside Station Wire	—
15	ADCP	Aerial Exchange Cable	REA-PE-22
16	IPL	Parallel Inside Station Wire	—

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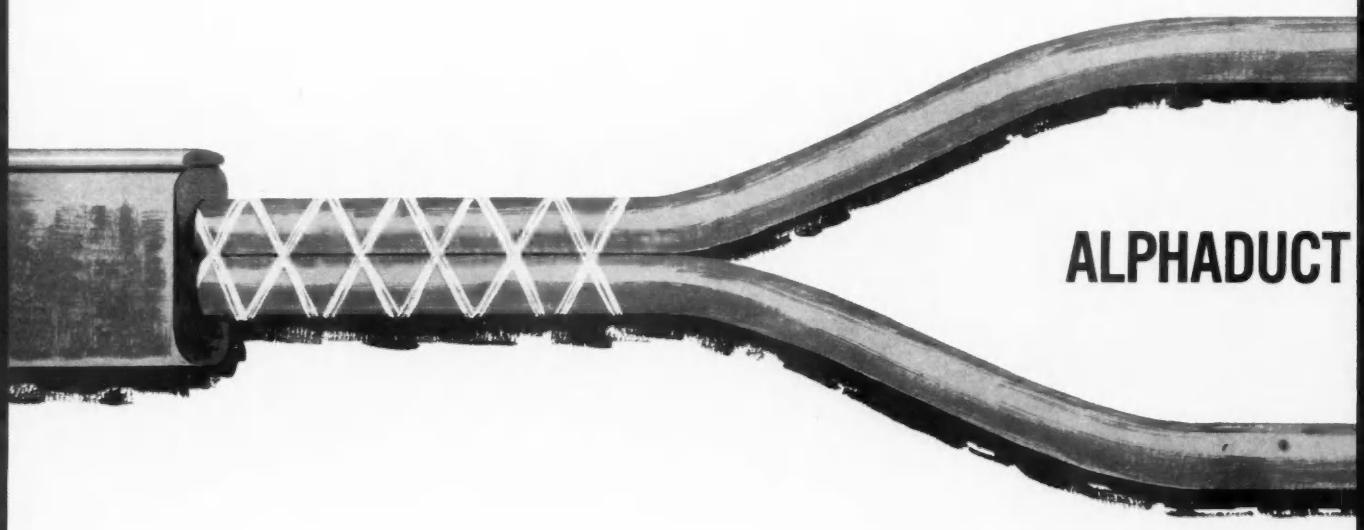

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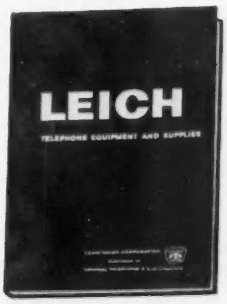

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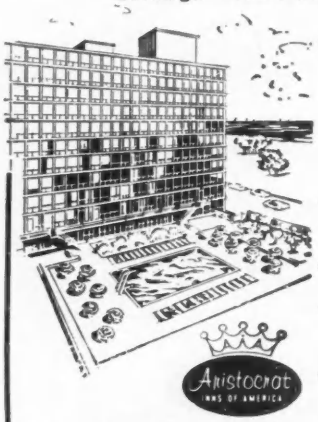

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Meat Outclasses Cabbage

"Lincoln's Gettysburg Address has 226 words; the Lord's Prayer has 56 and the Ten Commandments 297. Just for the record, the words in a federal order dealing with the price of cabbage number 26,911." — *Rimersburg (Pa.) Record.*

Bureaucratic Kibitzers

"Too many people in government are telling businessmen what to do and how to do it. A great many of these loudmouths couldn't run a peanut stand and make it a profitable operation. We can even remember a former President who fouled up a small business." —*Brewery Gulch Gazette, Bisbee (Ariz.)*

Three Poor Choices

"The past year saw thousands of people die of gas. A few inhaled it; a few more lit it; but most of them just stepped on it." —*Ovid (N.Y.) Gazette and Independent.*

Is Russia Laughing?

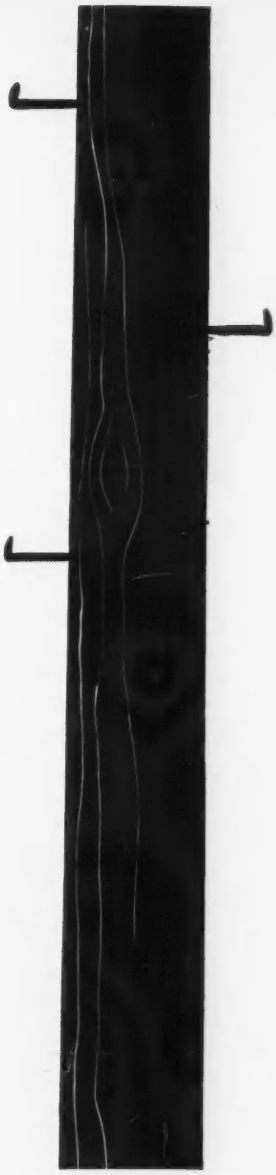
"We are spending billions for defense against communism, which is the ultimate in socialism, while we go ahead undermining our free enterprise system. Russia must be laughing up her sleeve as we lay the groundwork for her political philosophy." —*Nazareth (Pa.) Item.*

So Is the Fence!

"If the grass is greener on the other side of the fence, you can bet the water bill is higher." —*Bonduel (Wis.) Times.*

Ouch!

"The best board of education is often a shingle." —*West Springfield (Mass.) Record.*



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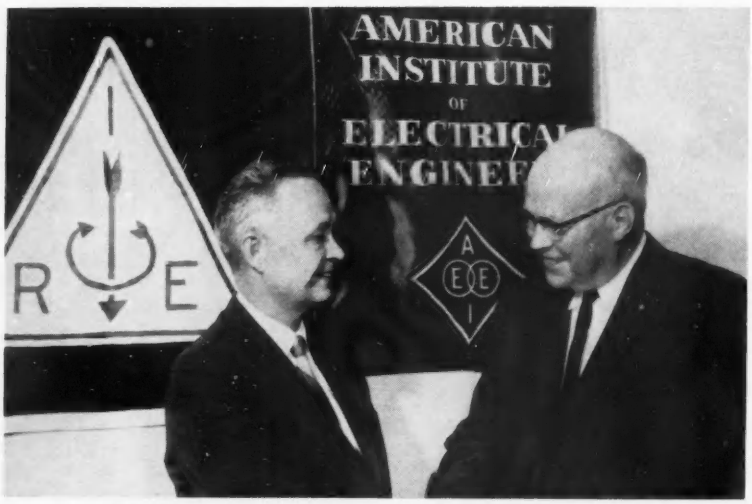
INDUSTRY VIEWS

DON G. MITCHELL, (left) vice chairman of the board, General Telephone and Electronics Corporation, was the keynote speaker at the 69th Annual Meeting of the Greater Muskegon Chamber of Commerce recently in Muskegon, Mich. His topic for the event that drew more than 500 guests was "Muskegon, — and the Future." The meeting saw T. A. Saunders (right), president of General Telephone Company of Michigan, retire from the presidency of the Muskegon Chamber of Commerce after his one-year term of office. In this photo Saunders greets Mitchell at the Muskegon Air Terminal.

Directors of the Western Carolina Telephone Co., Weaverville, N. C., elected THOMAS H. SAWYER (above) president, to fill the vacancy created by the resignation of Linn D. Garibaldi, Charlotte, N. C., as president and director. Sawyer was also appointed to a similar position in Westco Telephone Co., a wholly owned subsidiary of Western Carolina Telephone Co.



P. E. HAGGERTY, president-elect of the 90,000-member Institute of Radio Engineers, (left) and WARREN H. CHASE, president of the 70,000-member American Institute of Electrical Engineers, confer on steps to consolidate their organizations into one international engineering society. The boards of directors of AIEE and IRE have appointed a committee to study the question and to make a report by February 15, 1962. The plan will be submitted to the membership of both organizations. If approved, target date for "consummation" is January 1, 1963. Haggerty is president of Texas Instruments, Inc., Dallas, Tex., and Chase is vice president of the Ohio Bell Telephone Co.

JOSEPH C. MORREALE has been named area marketing manager for the Electronic Services Division of Raytheon Co. He will be headquartered at Hawthorne, Calif. Previously, Morreale was a member of the marketing staffs of Radio Corp. of America and the Autonetics Division of North American Aviation, Inc.

(L to r): MRS. W. B. HARRISON, Alfred, N.Y.; MRS. W. BRADFORD HARRISON, Dryden, N.Y.

(L to r): MRS. G. LEWANDOWSKI, Sanborn, N.Y.; MRS. TOM SAWYER, Weaverville, N.C.; MRS. ROBERT RUSSELL, New York, N.Y.; MRS. FRANK RITCHIE, Weaverville.

ITC Ladies Lunch At USITA Meeting

WIVES like conventions, too. And the Independent Telephone Corporation, New York, N.Y. was determined not to let its USITA Convention-going supervisors' spouses be stay-at-homes. So the company brought the wives along. They got to meet and enjoy each other, and to see Chicago as well.

(L to r): MRS. ROBERT E. THUEMMEL, Port Hope, Mich.; MRS. E. P. CORBIN, Monticello, Utah; MRS. J. W. CORBIN, Moab, Utah; MRS. J. WALLACE CORBIN, Moab, Utah.

(L to r): MRS. ROBERT INGLE, St. Mary's, W. Va.; MRS. NORM SMITH, Newport, Mich.; MRS. JACK BELL, Caro, Mich.; MRS. BILLY FERGUSON, Dryden, N.Y.

(L to r): MRS. DONALD HALL, St. Mary's, W. Va.; MRS. E. F. SAXTON, Lansing, Mich.; MRS. IRVING COUSINO, Newport, Mich.; MRS. LeROY DARLING, St. Mary's, W. Va.

(L to r): MRS. ROGER J. TUTTLE, Alfred, N.Y.; MISS FRANCES STAFFORD, Port Hope, Mich.; MRS. JAMES J. BAKER, Port Hope, Mich.; MRS. WILLIAM WOOD, Dryden, N.Y.

(L to r): MRS. H. A. BISHOP, JR., Starke, Fla.; MRS. ERNIE HERZOG, Hale, Mich.; MRS. KENNETH STRAW, Caro, Mich.; MRS. ERNEST PATZ, Dryden, N.Y.

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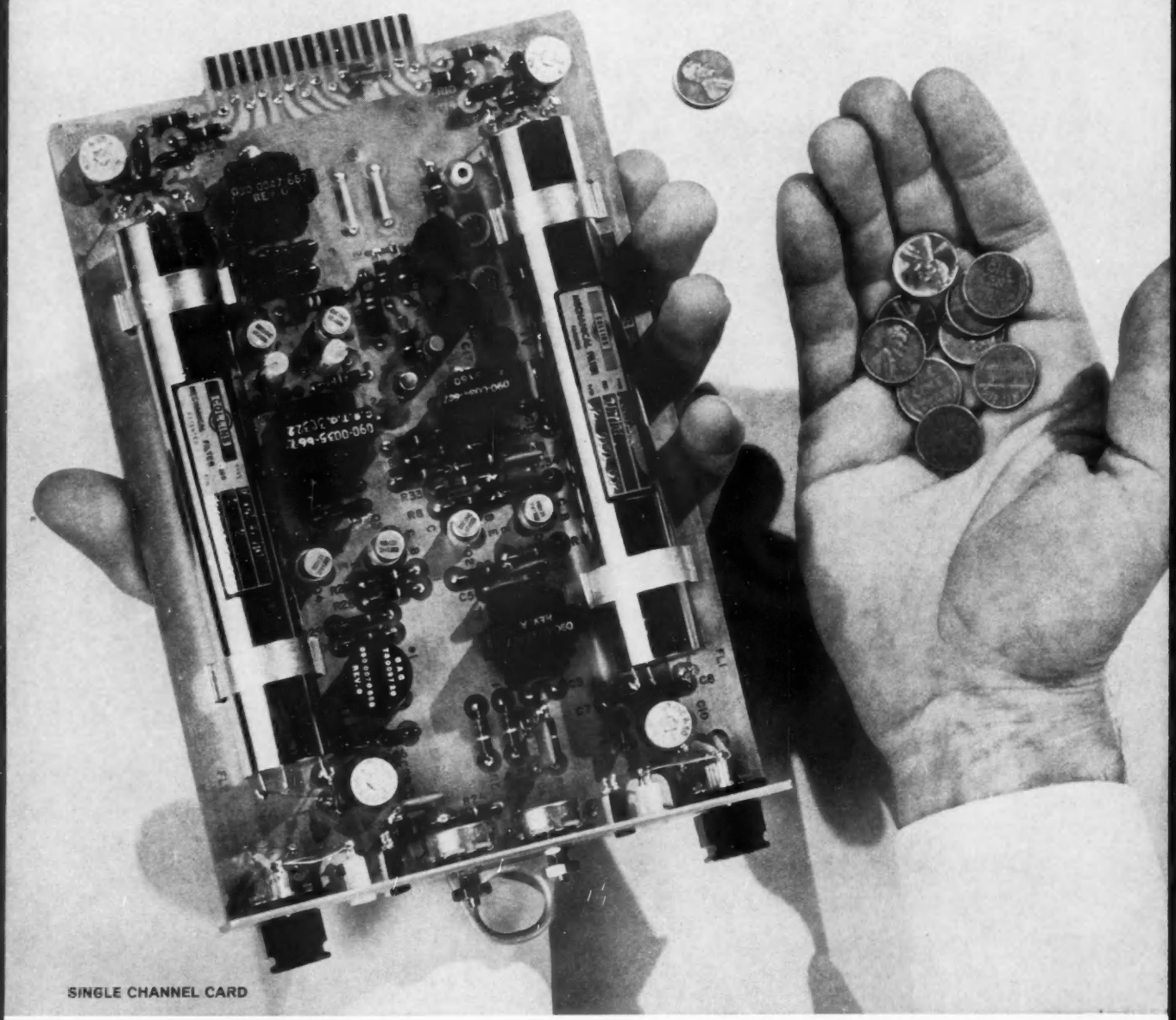

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EDITORIAL

"Below Consumer Price Index Increases"

■ FOR SEVERAL YEARS we have repeatedly expressed our belief that the type of commission regulation that begins and ends with hammering down the rates a telephone company can charge is not the type of regulation that enables a commission to *meet its responsibilities to the public, and to the company.*

This thought came to mind the other night as we reviewed recent rate orders and compared some of the decisions with remarks made at the recent convention of the National Association of Railroad & Utilities Commissioners (NARUC).

For example, the NARUC Committee on Rates of Public Utilities reported to the convention that "*in a period of continuous rises in the cost of living there is a strong public desire for reasonable rates which are stable over an extended period of time. As your committee has stated in previous reports, these public wishes require the proposal and prescription of forward-looking rates based on the economic realities of these times. Regulation has done a good job in keeping most rate increases well below consumer price index increases . . .*"

We have no quarrel with that statement. Proof that regulation has indeed "*done a good job in keeping most rate increases well below consumer price index increases*" is well known to anyone who studies the rate increase authorizations issued by some of the nation's regulatory agencies. Actually, since the war the over-all cost of telephone services has gone up only one half as much as the general rise in living costs.

Right along with the members of regulatory agencies we agree with the premise that a regulatory body must see that the telephone subscriber secures the same satisfactory service at a price which he might expect to pay if he were buying telephone service in an open competitive market.

However, we believe each regulatory commission has another responsibility which is equally important. That responsibility concerns itself with regulatory recognition of two facts: (1) The revenue produced by commission-established rates must be sufficient to cover expenses, taxes, depreciation, pay fixed charges and dividends, and permit the company to build up a reasonable surplus; and (2) the rates must permit earnings high enough to attract new equity capital on sound terms, and in sufficient amounts to provide a sound capital structure.

Rather than so much concern with "*keeping telephone rate increases well below consumer price index increases,*" we believe those who regulate should give considerable thought to authorizing rates that will permit telephone company earnings which are comparable with non-regulated, well-managed businesses which have similar risks.

It seems to us that rate decisions based on "*keeping telephone rates well below the consumer price index increases*" ignore the fact that regulatory commissions *do* have responsibilities that include not only the responsibility of seeing that the public has good and adequate communication service at fair rates, but also include the responsibility for making sure the rates produce earnings that will permit the company to meet its obligations and successfully compete in the free market for labor, materials, and capital.

When all regulatory commissions pay as much attention to their responsibility to the company as they pay to their responsibility to the public, we are sure two things will happen: (1) More commissions will be approving rates that will produce earnings that will stimulate progress, increase incentives, and nourish innovation; and (2) more of the nation's telephone companies will be proving that ample profits will produce better goods and services at less cost to the consumer than lean profits could ever produce.

We know that's sort of a two-pronged job. But nevertheless it is a job that must be tackled. If it isn't tackled, then someday those who regulate may well come face to face with the fact that regulation that is oppressive may work to the immediate advantage of the user of service today, but it may also ultimately work to his grievous disadvantage for many tomorrows.

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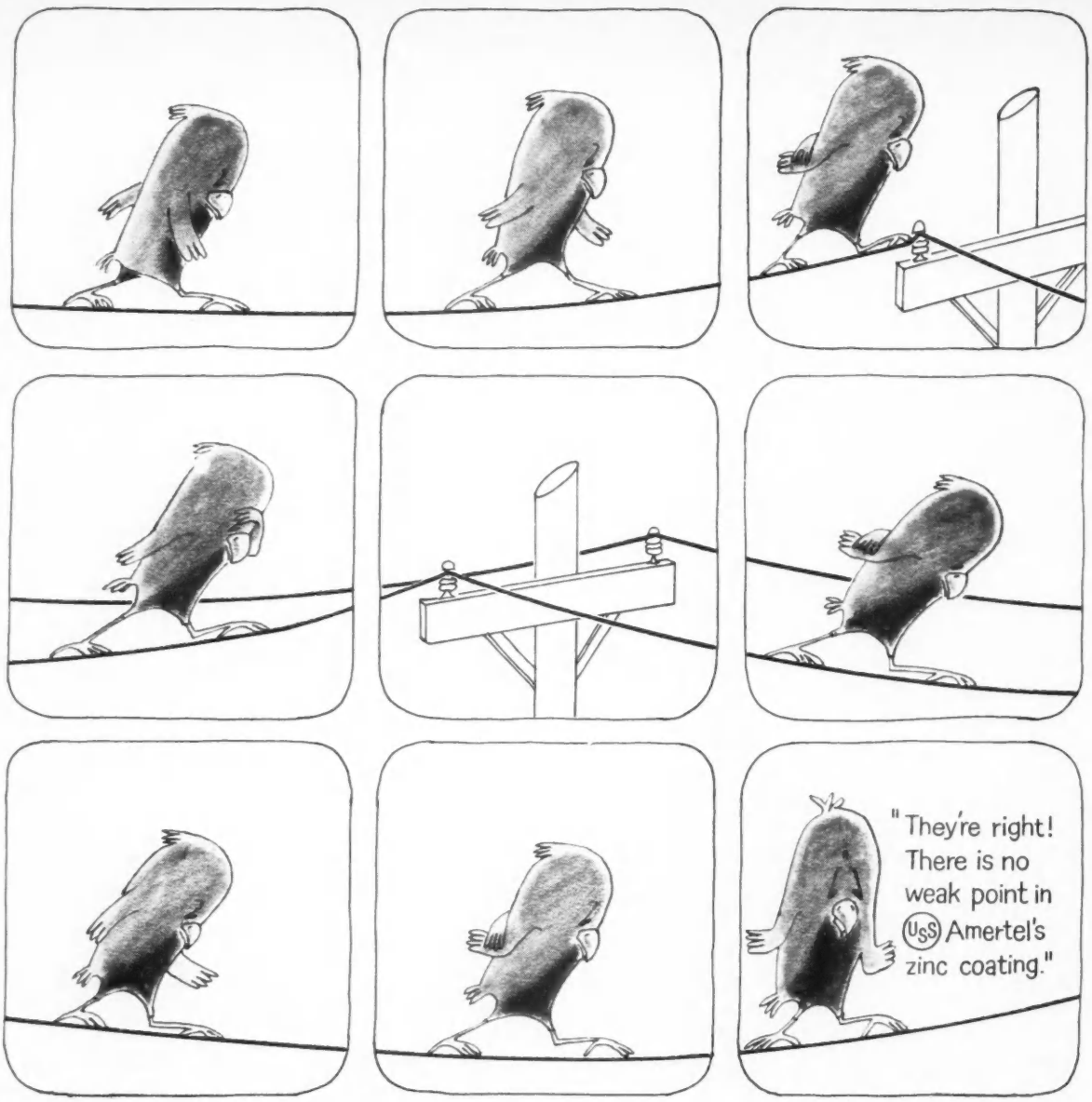

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Washington OBSERVATIONS

Hearings by Senate Small Business Monopoly subcommittee indicate no early decision on go-ahead to industry in development of plans for satellite communications system .

PROSPECTS that the United States communications industry might be given the nod in the relatively near future to go ahead with the development of plans for a satellite communications system — and thus give this country a *first* in the space field — appear to have dimmed considerably. This theory is based on testimony which was offered by government witnesses at a Senate Small Business Monopoly subcommittee hearing.

The Senate group, headed by Sen. Russell Long (D., La.), held a two-day session to examine the recommendations contained in the report to the Federal Communications Commission of the *ad hoc* committee of international common carriers established by the FCC to work out a program for development of such a system.

Because the *ad hoc* committee's recommendations — reported in previous TE&M's — were still under consideration at the time of the Senate subcommittee's hearings, the three government witnesses called to testify declined to get into any discussion of the specifics of the report.

Their testimony added little new knowledge of the subject of space communications. But out of the hearing came strong indications that a final decision as to how such a system is to be operated will not be forthcoming for some time into the future; and when the question is resolved, it will be done at the highest levels of government, not by the FCC alone.

The three government witnesses were FCC Chairman Newton Minow, Assistant Attorney General Lee Loevinger, and Dr. E. C. Welsh, executive secretary of the National Aeronautics & Space Council.

While declining to discuss the recommendations of the *ad hoc* committee directly, the three government officials did in their testimony agree on two points: That while a final decision on United States' interest in a satellite communications system is pending, the nation is not suffering from any delay, because research and development and other work continues; and all of them indicated that when a decision is reached it will be the product of inter-agency discussions, rising to the cabinet level, and possibly with final action by the White House.

Hearing Probes Financing, Competition

THE THRUST of the questioning by Sen. Long at the hearing centered on two main issues: Financing of any system, particularly as to what part of the costs of launching satellites and operating the system should be incorporated into existing rate bases of the present international carriers, if they are to operate the system; and, secondly, whether the *ad hoc* committee recommendations would lessen, rather than broaden, competition in the communications field.

Chairman Minow took the position, and Sen. Long agreed with him, that the FCC could not answer questions specifically related to the *ad hoc* committee report when the commission did not yet have before it all comments that could come before it from interested parties and thus had not ruled on the report.

Judge Loevinger and Dr. Welsh took the same position. But all three men, in responding to questions, indicated reservations on the part of administration officials about the report submitted by the *ad hoc* group in early October. Each in his own way stated flatly that the final outcome of just how the United States will participate in development of a space communications system will be determined at the highest levels of the government.

Chairman Minow noted that the FCC is just "one of a number of agencies concerned" with this problem. He asked congressional advice as an aid in reaching a decision.

Judge Loevinger, declaring that the Justice Department is "not dragging its feet" in the matter by not yet having reached a "definitive position," stated that "This is a matter of such importance that we need action at at least cabinet level."

Dr. Welsh told the subcommittee that when studies of the *ad hoc* report are completed and a "definitive administration" position can be reached, "it presumably would take the form of a recommendation to the President."

While Chairman Minow was extremely cautious in discussing the *ad hoc* group's report, the Justice Department and Space Council spokesmen did offer some

criticisms of the international carriers' proposals in their testimony.

Judge Loevinger said he feels that the industry representatives serving on the committee made an honest effort to come up with a report that all could agree to. He added, the Justice Department's study of the report so far has left the department with some dissatisfaction with its contents. He declared that the recommendations, based on this preliminary review, "are not adequate to the achievement" of President Kennedy's satellite communications policy statement of last July. He characterized the report as "inadequate" because of its "generalities and omissions."

Dr. Welsh, in a prepared statement, said: "The *ad hoc* committee has submitted a proposal, which its authors indicate to be in accordance with the President's policy. I am sure that we all recognize that such a proposal is not the only method which might be considered for organizing the communications satellite industry, and that other alternatives would also be judged against the public interest policy requirements. I might add that, in my judgment, it was both reasonable and useful to have given an industry group such an opportunity to make recommendations."

Dr. Welsh Adds "Generalizations"

THEN HE added several "generalizations" considered appropriate. In them he offered some critical comments which could be interpreted as aimed directly at some of the companies which served on the *ad hoc* committee. In one of these, Dr. Welsh stated that "It is significant that the private companies, which produced the *ad hoc* committee report, recognized that government regulation alone would be insufficient and hence recommended that there also should be U.S. government representation on their proposed Communications Satellite Corp. board."

Next, he declared that "Those who previously had stated that they could have a communications satellite system in operation in a very short time, if the U.S. government would let them, either have modified their view or are not numbered among the signers of the *ad hoc* committee's report."

The Space Council official's final point was that "The concentration of economic power, which now exists in our communications business, should not be enhanced by the introduction of communications satellites. On the other hand, it does not seem reasonable to expect that the existing problems characteristic of economic concentration will be solved in the process of organizing a communications satellite corporation."

This last point was the theme which ran through the questioning of witnesses during the two days of hearings. They were questioned particularly about whether the proposed non-profit corporation of existing carriers contained in the *ad hoc* committee's report might give dominance to the American Telephone & Telegraph Co. in the operation of the system.

Subsequent to the Senate monopoly subcommittee hearings, the FCC received filings from only two companies to the invitation it had issued to comment on the *ad hoc* committee's report.

General Telephone & Electronics Corp. — which did not serve on the *ad hoc* group but which would be eligible to participate in the system as recommended by the committee — endorsed the proposal, offering to make "an initial capital investment of at least $500,000 in a joint venture which conforms substantially to that proposed by the majority of the committee . . ."

In making its report, the committee had recommended that the non-profit corporation it proposed should be permitted to include international common carriers and, in addition, any U.S. communications company which, either directly or indirectly through a subsidiary or subsidiaries, provides common carrier communications services within the U.S. and also originates communications services in a foreign country or countries which terminate in the continental U.S.

GT&E Urges Modification Of Majority Proposal

IN COMMENTING on the *ad hoc* committee report, General said it "strongly urges that the majority proposal be modified to provide that all interested 'domestic,' as well as 'international' carriers, be permitted to make capital commitments at the outset of the venture.

"General submits," its filing continued, "that this would require but slight modification of the majority proposal in that only those 'domestic' carriers making capital commitments of $500,000 or more could individually designate directors and all interested domestic carriers not electing to make individual capital commitments of $500,000 or more could collectively elect one director."

Adoption of this modification, General said, would not only afford the new venture access to technical know-how and capital which might not otherwise be available to it but that it also would provide a means of broadening the base of ownership to avoid dominance.

The only other company commenting on the *ad hoc* committee report was Hughes Aircraft Co., which urged that the communications satellite company "be a profit-making corporation in the American tradition"; that the company be financed through public stock subscription; and that the satellite and ground stations be "considered as a complete and unified system." All these suggestions are contrary to the recommendations of the *ad hoc group.*

Hughes also pushed for a high-altitude system, and said that $60,000,000 would be a "realistic cost estimate for such a system," based on assumption of 50 per cent launch success. The aircraft company said it also did not agree that the use of satellites is several years away, and said it can have a commercial system in operation one year from the time it is permitted to proceed.

A SECURITY ANALYST LOOKS AT THE INDEPENDENT TELEPHONE STOCKS

Some of the smaller companies are at the crossroads. What decision is right for you? Should you merge or consolidate into a larger system? Would an REA loan solve your problem? Should you seek public funds?

By MISS MARJORIE M. JONES
White, Weld & Co., New York, N. Y.

WHAT IS THE OBJECTIVE of security analysts? The answer is simple — to make a profit for our clients.

We are expected to channel the investor's money into industries and into particular companies in such industries, resulting in profits commensurate with the risks assumed. Although the objective is clear cut, attainment of this aim is not always so easy.

How do we utility analysts proceed to this end? In particular, how do we go about analyzing the Independent telephone company stocks?

First, a careful study is made of the past record of your industry. We find that for the last two decades tremendous growth has taken place. The number of phones in use has tripled. Outlays for plant have been huge. Gross revenues, helped in many cases by rate relief, have shown sharp increases.

We discover the population push into the suburbs has brought not only rapid expansion to many Independent telephone companies but has caused problems as well. A number of Independents have solved their problems by effecting mergers into large systems. Others have worked difficulties out through sound financing programs and a bold attitude toward obtaining rate relief.

We use all this past data as a basis for projecting the future. Based on population trends, increases in the standards of living and the fact that your service now reaches into every aspect of living in this country, it is impossible to foresee anything but continued growth for the industry.

Capital expenditures, to expand and to improve existing services, will continue to be large. Financing requirements will be heavy. For various reasons, mergers and consolidations are likely to continue. Larger companies will become stronger.

Look at Individual Companies

AFTER DETERMINING that the Independent telephone industry has interesting growth prospects, it is necessary to look at the individual companies. We, as analysts, must try to select the companies which will give above-average performances. We do this by considering many factors.

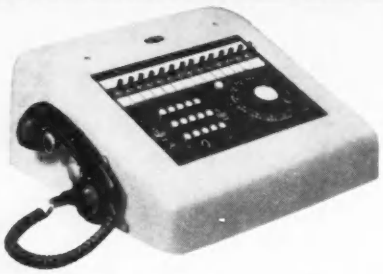
We check the population growth trend for the area served, the economic conditions affecting that territory, regulatory climate, revenue growth, all operating data to give us an indication of efficiency, financing policies, plus many other aspects.

However, what single yardstick can we look at which will indicate management's ability to cope with territorial, regulatory, operational and financial problems? The answer is the *trend of per share earnings.*

A company may service an area with a population growth trend twice the national average; revenues may be increasing at a rate of 10 per cent annually or better; but if that growth cannot be translated into per share earnings growth, it is of no benefit to the stockholders.

If one were to check the market performance of the stock of such a company, he generally would find that over the years the stock had appreciated roughly in

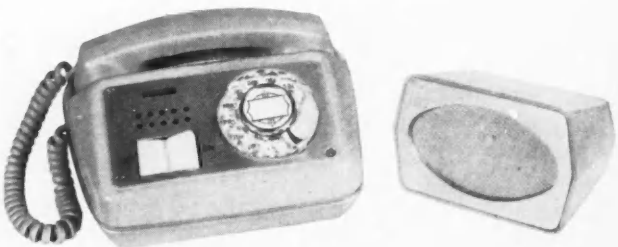
AE
PROVIDES BUSINESS COMMUNICATIONS



TYPE 80A PABX. A complete communications system for up to 80 lines. Handles up to 12 inside and 16 outside calls at once. Compact attendant cabinet keeps traffic moving swiftly.

TYPE 86 PHONE. Provides switchboard convenience for small subscribers. Up to six central office, PBX or private lines. Dial or pushbutton intercom service. Choice of colors.

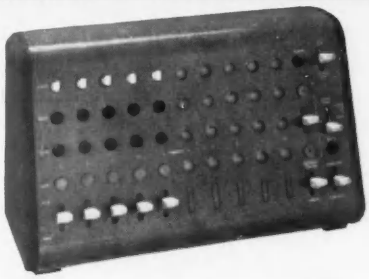
TYPE 85-C PHONE. For two-line pickup, signaling and extension exclusion. Ideal for retail store or small office. Simple turn button switches from one line to another. Choice of colors.



SPEAKERPHONE/Executive Model. Gain switching eliminates feedback, singing and other distortions. Your customer gets the same high quality transmission with loud speaker or handset! 6 colors.

For details on our complete line of business phones, PABX and PBX boards and key systems, see your AE representative. He can also furnish you with valuable sales aids to help you promote business communications equipment. To contact him, just write Automatic Electric Sales Corporation, Northlake, Illinois.

FOR LARGE OR SMALL SUBSCRIBERS!



TYPE 75 PABX. Designed to serve up to 200 lines. Can be expanded for greater capacity. Desk-type attendant cabinet (shown here) or floor-type attendant cabinet. 14 optional services.

CALL COMMANDER* PHONE. Key system service for up to 17 outside PBX or private lines. Push-buttons light to serve as line signals. Intercom and conference features, too. Beige or green.

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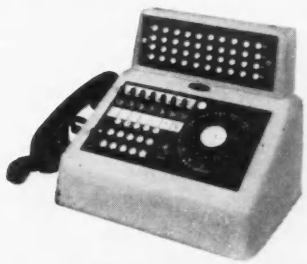

TYPE 40A PABX. A complete communications system for up to 40 lines. Handles up to six inside and 10 outside calls at once. Compact attendant cabinet keeps traffic moving swiftly.

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line with earnings per share and not with revenue growth. The reason for this is that by far the most important factor affecting the market price of a utility stock is earnings per share and the trend thereof.

From this it follows that management's obligation to stockholders is to do everything humanly possible to translate company growth into rising earnings per share.

In trying to ascertain what the trend of earnings per share of a given company will be in the foreseeable future, we take into consideration all the factors I have mentioned before. Special emphasis is placed on the three most important: Rate of territorial growth; nature of regulation; and management attitudes.

Rate of territorial growth and the importance of understanding the nature of applicable regulation need no explanation. However, regulation does not have to become more liberal so earnings per share move upward at an adequate pace. The principal requisite is that regulation, in point of rate of return on a stipulated rate base, does not deteriorate.

If the utilities with the sharpest growth rates in per share earnings are examined, it generally will be found that all three fundamental considerations are favorable. If any of the three basic factors is not favorable, then the trend of per share earnings will tend to be something less than in the best in the industry.

In cases where the rate of service area growth — or sometimes even the nature of regulation — is relatively mediocre, a fairly healthy trend of per share earnings can be developed if the management factor is favorable. Management factor is an important key to the question.

Management Stockholder-Minded?

IN ASSESSING the management of a utility, analysts and investors want to know if it is stockholder-minded. Is management working chiefly for its security holders? What problems do they foresee, and how do they intend to cope with them?

Do they intend to make a real effort to build per share earnings, or will they follow an easier course? It is our firm belief that a management which strives for a good per share performance will, of necessity, be benefiting the consumer and employe as well.

You might ask how it is possible for the management of a regulated telephone company to increase per share earnings substantially. There are two broad areas of management policy and discretion which bear heavily on the trend of per share earnings.

The first has to do with rate of return earned on whatever rate base is stipulated by the regulatory body having jurisdiction. The second relates to dividend policy and the means of financing expansion.

Earning a full rate of return on an allowable rate base is divisible into two parts — what can be done from within, and what must be accomplished through rate relief. Generally, there is considerable difference between the amount by which a utility could add to a given rate of return through use of each of these methods.

A company might be allowed to earn and keep about 6 per cent on its capitalization. By reducing costs and expenses, the return might be pushed to seven per cent without an objection from the commission. However, if the company applied for higher rates to increase the return to seven per cent, it might be turned down cold.

Management must make every effort to keep expenses and costs as low as possible to keep the rate of return up. Various means of doing so in the utility business are well known.

The problem of determining when rate relief is needed to correct a sagging rate of return, how much to seek, how to present a rate case, and so on, is one of the most difficult in the utility business.

There are many approaches. Management's objective should be to earn all the end-result dollars that can be earned and kept within the framework of regulation.

There are always a great many factors that influence management's decision on timing and preparation of a rate case. Most professional investors understand these factors. Their principal area of concern is management's basic attitude toward the problem of seeking rate relief.

Is management trying to find a sound way to proceed with this unpleasant chore, or is it trying to find a reason why it should not proceed? Management must have the will to obtain necessary rate relief.

Prepare your rate case as clearly and as thoroughly as possible. Then put the facts before your commission. If your return is adequate now, but your forecasts indicate trouble ahead, be ready to rectify the condition before earnings decline materially.

There should be no fear or hesitancy in seeking rate relief if you are not earning an adequate return and have done all you can to rectify the situation from within. Sometimes it is helpful to educate your commission and your customers to your company's need for rate relief through advertising and other means.

Dividend Policies, Financing

THE OTHER basic area that has an important bearing on the trend of earnings per share of a utility — the real measure of growth from the investor's standpoint — pertains to dividend policies and financing.

Retained earnings provide a company with funds which, if used profitably, can help to increase profits per share in the future. Retained earnings also provide a base for the issuance of prior capital: Preferred stock, debentures, and bonds.

For each $1 of retained earnings, roughly $2 of prior capital can be issued. If the cost of carrying this prior capital is less than the rate of return earned, the difference will be added to earnings available for the common stock.

A policy of no dividend at all would appear to be ideal for a company constantly in need of money. In

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Marketing and Sales Create Problems in Accounting

The Accounting Department is one of the key spots in the company "where we need to have understanding, acceptance and participation in effecting the changes necessary to make a transition from a product or technically-oriented company to a customer-oriented company."

By R. PARKER SULLIVAN

Vice President — Marketing & Sales,
General Telephone & Electronics Corporation,
New York, N.Y.

MARKETING has many meanings to many people. Before we start a discussion of marketing and its relationship to our accounting function, I believe we need to define what we mean when we use this term.

Marketing is a basic business philosophy or, to express it another way, it is an attitude toward the conduct of a business which recognizes that only through complete customer satisfaction can we realize our maximum profit potential.

This simply means you can anticipate your profits in relation to the degree of customer satisfaction that you attain. As soon as you accept this definition, it becomes obvious that marketing is not the responsibility of an individual or of a department. But it is a basic philosophy that involves all functions of all departments.

The Accounting Department plays an essential role in determination of the degree of satisfaction the customer receives. It is one of the key spots in the company where we need to have understanding, acceptance and participation in effecting the changes necessary to make a transition from a product or technically-oriented company to a customer-oriented company.

The magic word "changes" leads us directly into our problems.

It may seem strange to be highlighting problems associated with the inclusion of an aggressive marketing effort in the operations of a telephone company. It may even appear I am taking a negative approach to our discussion of marketing and its effect on accounting.

I'd like to assure you my intention is the contrary.

VENDING COMPANIES depend on telephone answering sets

"Now, for a few pennies a day... the 'Secretary' takes calls in our absence"

JOHN M. BUENZLI, *Prairie Bottling & Vending Company, Prairie du Chien, Wisconsin*

In a letter to the telephone company, Mr. Buenzli states: "In our bottling and vending business, we have many orders and service calls. Before we had an ELECTRONIC SECRETARY installed, someone had to stay here to answer the phone. Now we can leave whenever we choose, and upon our return, take care of the recorded messages received during our absence."

If your business is bottling, vending or any other type of sales and service, you are very likely experiencing a problem similar to Mr. Buenzli's. Perhaps you can solve it the same way he did.

An ELECTRONIC SECRETARY answering set will answer your phone twenty-four hours a day, seven days a week, if you like, with an announcement message that YOU have recorded. It will take the incoming messages (as they are given), eliminating the human element factors of errors and days off. And . . . as Mr. Buenzli says, all this "for just a few pennies a day."

Ask your telephone company for complete details

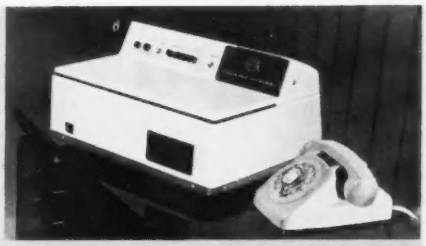
ELECTRONIC SECRETARY®

Telephones
+ELECTRONIC SECRETARY sets
add up to More Revenue for YOU

In the bottling and vending business, as in other services, the telephone is a very important tool. A phone call is an order for a new machine, or a couple of cases of soft drinks, or perhaps . . . an interested prospect. By the same token, the loss of a phone call might mean the loss of a customer.

Mr. Buenzli closes his letter with the following statement: "Thank you for providing this service to enable us to serve our customers better." By installing an Electronic Secretary set for a business subscriber, you are not only increasing your revenue via installation charges and monthly rental, but you are also providing him with the maximum in telephone service.

A proof of the opposite page is being mailed to you. Show it to bottling and vending companies as well as other service-type businessmen in your area.



LONG PLAY MODEL

Designed primarily for the company receiving a large number of calls or messages of great length. Answers the phone with an announcement message and receives up to two hours of incoming messages.

SHORT PLAY MODEL

Especially good for the smaller business. Performs the same functions as the Long Play Model but has a more limited capacity.

ANSWER ONLY MODEL

For those who want the advantages of automatic answering but do not need the incoming messages recorded.

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My objective is to try to identify a significant development in our industry, to acquaint you with problems associated with this development, and through this direct approach to obtain from you a substantial contribution toward understanding, acceptance and inclusion in your company of sound marketing principles. This is something we must do to survive and prosper.

There is an old adage which says discontent is the first step in the progress of a man or a nation. I believe all of us will subscribe to this. I'd like to suggest that your company and mine, as well as you and I as individuals, have enjoyed a degree of progress in relation to our ability to meet and solve our problems.

For confirmation of this we have only to look back in the history of the telephone industry where we find an undertaker in Kansas City who had a problem (or at least he thought he had) getting all of his calls from the operator. The result was the invention of the first dial telephone system.

Today the telephone industry is in a position to realize a degree of progress equivalent to the introduction of the dial telephone system. To achieve this progress we must recognize opportunities and challenges that exist, properly identify problems, and effectively make changes and modifications necessary to take full advantage of a developing situation. Failure to see opportunities, to recognize the changing situation, to make adjustments promptly may prove disastrous.

Businesses that today appear to have the highest possible degree of permanency may find themselves subjected tomorrow to some fundamental changes. The telephone industry is experiencing such changes.

We are in a position similar to the one the railroads found themselves in not too many years ago. They enjoyed fierce loyalty in investment circles, only to find themselves in serious financial difficulty a few short years later.

One of the best explanations of what brought on this situation is contained in an article titled "Marketing Myopia," published in the *Harvard Business Review*. Here is an excerpt:

> "The railroads did not stop growing because the need for passenger and freight transportation declined. That grew. The railroads are in trouble today not because the need was filled by others (cars, trucks, airplanes, even telephones), but because it was *not filled* by the railroads themselves. They let others take customers away from them because they assumed themselves to be in the railroad business rather than in the transportation business. The reason they defined their industry wrong was because they were railroad-oriented instead of transportation oriented; they were product-oriented instead of customer-oriented."

Similarity Gives Cause for Concern

THERE IS sufficient similarity here to give us just cause for concern, particularly in view of changes taking place now in our industry. It appears advisable for telephone company management to make the determination now whether they are going to consider themselves in the telephone or communications business.

What is the opportunity I refer to? It consists of a much higher degree of sophistication on the part of the American public concerning the value of their communications, and an increasing demand for more and better means of communicating in our business, political, religious and social lives. This is the opportunity. Now what is the challenge?

The challenge is to recognize basic changes taking place in this communication field, to realize that prior to World War II there were a limited number of organizations that possessed sufficient knowledge, experience and capability to furnish accurate, fast, dependable communications.

Tremendous demands for more and better ways to transmit intelligence and information were created by the war. This transmission had to not only be accurate, fast and dependable; it had to be practically trouble-free.

The result was the development of a great deal of know-how on the part of many people and numerous firms to furnish good communications, and to meet rigid specifications established for such equipment.

At the end of the war these firms with their new-found capability were in a position to introduce communication services, in some instances broader and superior to the traditional services we had been offering. We must adjust to meet this challenge.

Let me identify problems associated with this change in attitude on the part of our customers and the influx of new techniques and new sources for the provision of modern communication.

The most serious problem we have in the telephone business today is over-confidence, complacency or "railroaditus." We have the natural tendency to believe the fundamental communication system we have so expertly designed and installed always will be in demand.

While this is true, I also believe there exists the possibility we may lose the profitable portion of the communication business and be relegated to furnishing only the least profitable portion. To avoid this we must change our attitude and make the determination that we are in the communication business.

We must adopt a policy that will allow us to determine what our customers want and need, then dedicate all of our technical knowledge, experience and capacity to furnish it to him promptly, efficiently and at a fair profit to us.

We must be prepared to make the changes and adjustments necessary to meet and beat our competition.

The kind of competition I am referring to is not theoretical, but real. It is the kind with capability not only to deprive you of future revenue potential, but to take from you a sizable portion of your present revenue.

This is direct competition for the basic services we

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TRAFFIC LIGHTS

By D. A. PERIGO
General Traffic Supt., West Coast Tel. Co., Everett, Wash.

Random Thoughts on Toll Rate Structure

TIME TO DO SOME EVALUATING

In the Sept. 15, 1960 issue of TE&M, author Perigo discussed toll rates and practices. Since then he has received ideas from many people on subjects ranging from report charges to intrastate and interstate rates.

DURING THE PAST YEAR we have discovered a lot of interest in discussing toll rates and practices, but among Independents this subject always seems to wind up with a feeling of hopelessness. Most Independent companies concur with the rates of their Bell connecting company.

This is often the case even where the Independent owns toll lines of its own. Regardless of the responsibility there is a feeling that drastic changes are necessary on person and collect rates, as well as practices on credit card and third number calls.

There are undoubtedly a great many complications in toll rate making. One of the biggest of these is the need for intrastate approval from a state regulatory body and interstate approval from the F.C.C.

Everyone with whom we talk seems to agree that elimination of report charges (the cost to calling customer for report about called party) increased the number of cases of toll abuse. In total, the amount of money lost is probably insignificant, but there is a built-in stimulation which makes the situation worse and worse.

We recently discussed this subject with a service observer. Nowhere does this item appear as an observed item—but an observer can scarcely work day after day without becoming aware of widespread abuse.

More and more we run into discussions about the value of DDD for person, collect, and special services. The investment requirement—especially consideration of obsolescence of present switchboards as well as the new boards—raises serious doubt as to the value of person DDD except in large operating units.

Customer acceptance seems like another doubtful point. We may as well face it. There are customers who don't like station DDD. This was true with local dial operation a few years back, and we have almost outgrown it. Probably acceptance of customer toll dialing will follow the same pattern, although there is one difference: On toll the customer has a choice of either DDD or CLR service, which he didn't have in local dial operation.

We've made scratch notes of various discussions (and look at these slips of paper while transferring them from suit to suit until the notes are often unreadable.) A pattern seems to emerge.

You can't have a toll rate discussion of any kind without someone mentioning the disparity between intra- and interstate rates. This is something the customer can't seem to understand, and he asks "Why can you talk across a state boundary for less money than for a shorter distance within the state?"

Not too long ago there was an after-hour session between a Bell System employe (with little knowledge of separations procedures), a sizable toll user, and yours truly. The above question was raised right out of the clear blue sky. Up to that point no one had even mentioned the telephone business in any way.

In his answer the Bell System man inadvertently left the impression the associated Bell company was paid a commission for originating the traffic, rather than there being a division of revenue.

At any rate, the customer said "It seems to me that I'm *your* customer, and when I call out of your territory you're the one obligated to get my call to its destination. My business is your business. Why don't

Please turn to page 52

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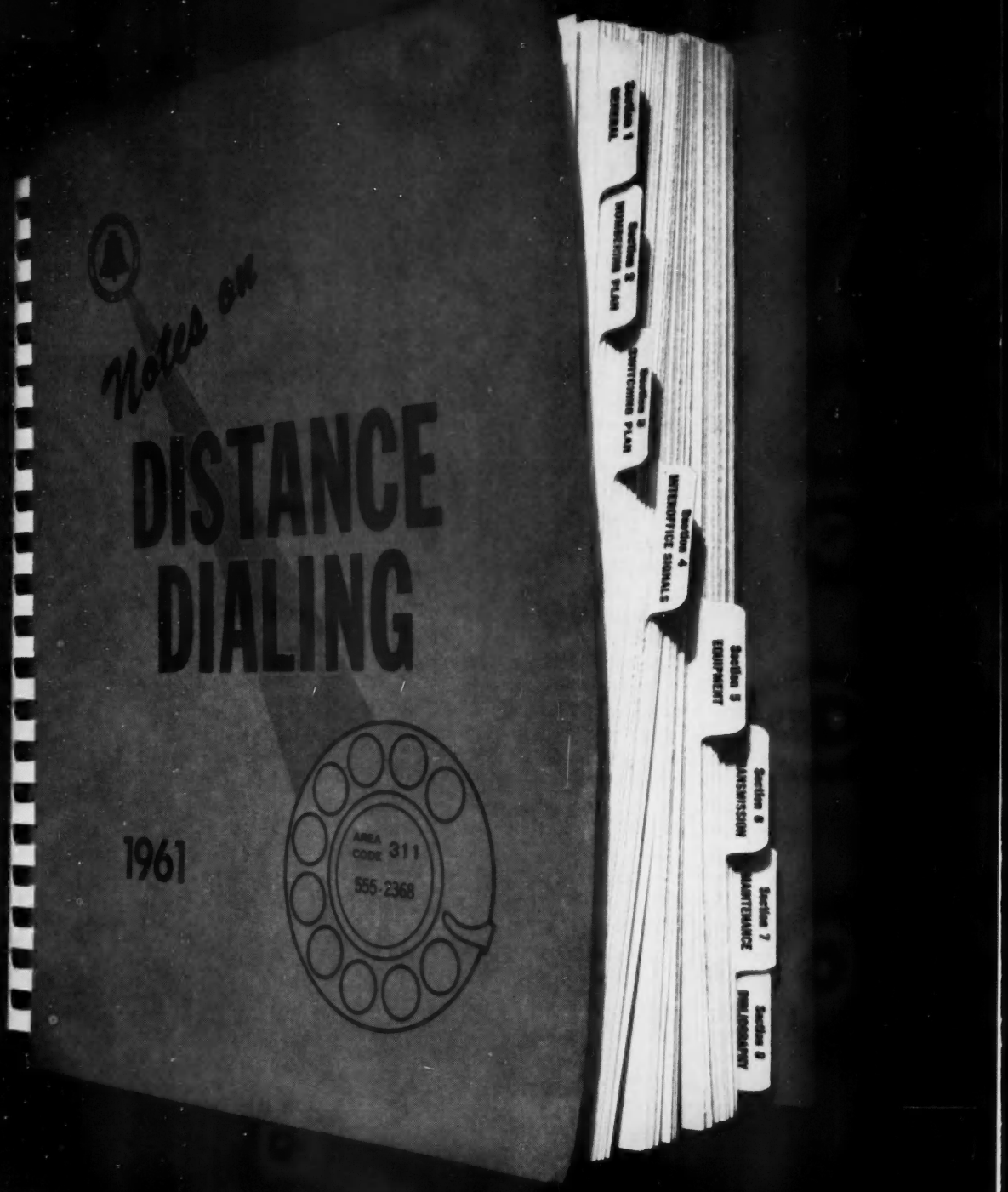

This expanded and revised technical guide on distance dialing features important new sections on:

- Present and future distance dialing procedures
- Universal code for centralized NPA information bureau
- Elimination of flashing signals
- Use of recorded announcements
- Use of tone appliers
- Single train arrangements for step-by-step offices
- Objective Via Net Loss (VNL) values
- Code test lines and test numbers
- Distant information service

"Notes on Distance Dialing" for 1961 is the result of long and close cooperation between Bell System representatives, members of USITA's Subcommittee on Nationwide Dialing, and the REA telephone engineering staff.

With the continued growth of both operator and customer dialing, all telephone companies will find this guide invaluable.

Persons having the 1956 edition of the "Notes," and others who may find them useful, should contact their nearby Bell Company to obtain the new edition.

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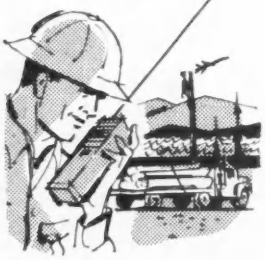

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you pay whatever is necessary to get the other company to complete it?"

The Bell System and the Independents have probably been over this many times in discussing settlements but we think this customer had a good question. While we kept quiet at the time, we can't go on that way forever. We know the disparity question is actively being considered by others—and so are settlements—but the remainder of this pattern may tie in with both problem areas.

First, we should have only a Station rate table. This would be our basic toll rate tariff and as a starting point we'd assume it is presently correct for *manually* handled Station traffic.

Second, provide a discount on the DDD Station calls. This should be expressed in a percentage and applied to the total DDD charges for the month! It would seem this might be discrimination until such time as DDD is available to all customers of any company.

For example, the Independent company that provides DDD for all its customers might be able to use such a plan on calls between its own exchanges. It might not be used where the called customer does not have DDD because there would then be a difference in the rates between the same two points.

Another way of looking at it is that by using only one basic rate schedule there is no difference in the rates, but the company is sharing its profits from DDD with its customers.

Third, provide a flat charge for Person service over and above the regular Station rate. This would apply on a 25¢ route or one of $2.25. For example, if this charge were $1, it would cost $1.25 for an initial period Person call over a short route and $3.25 over long haul.

The reasoning on this is that all of the additional operator time required on a Person call takes place *before* the conversation starts. After the conversation has started there is no difference in the circuit usage or the operator time, so charges for this part of the call should be the same as for Station traffic.

Also in this plan the $1 becomes a Report Change.

And fourth, place a premium on Collect calls such as one-half the amount of the Person premium. This would be added to any other charges and a Person Collect would have a premium charge of $1.50.

Even recognizing the abuses of the Collect call, this one seems to be at cross purposes when we're trying to get DDD customers to use Station instead of Person, then have the called party call back Station *Collect* when he's available.

Maybe the arithmetic would work out satisfactorily so it would still save money for the calling party. It raises a good question as to who will pay on a call from a paystation. Perhaps there should be a deposit of 50¢ which we'd refund when charges are accepted.

These ideas have come from many telephone people. I've put them together in one plan, which would take much arithmetic, planning, and discussion with regulatory bodies to put into practice.

the telephone notebook

A schoolboy once wrote to his grandfather asking him to "explain just how there can be a profit which is not taken from the work of someone else." The grandfather, Fred I. Kent, LL.D., president of the Council of New York University and a former director of the Federal Reserve Board, replied:

"What Is Profit?"

■ My Dear Grandson: — I will answer your question as simply as I can. Profit is the result of enterprise which builds for others as well as for the enterpriser. Let's consider the operation of this fact in a primitive community, say of 100 persons, who obtain only the mere necessities of living by working hard all day long.

Our primitive community, dwelling at the foot of a mountain, must have water. There is no water except at a spring near the top of the mountain: therefore, every day all the 100 persons climb to the top of the mountain. It takes them one hour to go up and back. They do this day in and day out, until at last one of them notices that the water from the spring runs down inside the mountain in the same direction that he goes when he comes down. He gets the idea of digging a trough in the mountainside all the way down to the place where he has his habitation. He goes to work to build a trough.

Then one day this 100th man turns a small part of the water from the spring into his trough and it runs down the mountain into a basin he has fashioned at the bottom. Then he says to the 99 others, who each spend an hour a day fetching their water, that if they will each give him the daily production of 10 minutes of their time, he will give them water from his basin. He will then receive 990 minutes of the time of the other men each day. This arrangement will make it unnecessary for him to work 16 hours a day to provide for his necessities. He is making a tremendous profit — but his enterprise has given each of the 99 others 50 additional minutes each day.

The enterpriser, now having 16 hours a day at his disposal and being naturally curious, spends part of his time watching the water run down the mountain. He sees that it pushes along stones and pieces of wood. So he develops a water wheel. Then he notices it has power and, finally, after many hours of work, he makes the water

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TELEPHONE

ALCOA BOOTHS INVITE WHOLE FAMILIES TO CALL NOW... UP REVENUE 40%

In Bowie, Arizona, Apache Automatic Telephone System reports:

"Since we installed three Alcoa Outdoor Telephone Booths in Bowie, a popular stopping place for vacationers, our revenue has jumped 40%," explains L. O. Scott, manager of Apache Automatic Telephone System. "These convenient booths spur tourists into calling back home.

"We chose standard Alcoa booths. They're roomy enough to let the whole family get inside and talk to Grandma or listen in.

"Upkeep's proved negligible," continues Manager Scott. "Occasional soap-and-water washings. Our Alcoa booths discourage vandalism and won't need painting. These booths are built to withstand punishment. Besides, they're well-lighted at night.

"In fact, we're so pleased with our Alcoa booths that we plan on putting in more."

You'll discover Alcoa® Telephone Booths real revenue boosters, too. They fit just about anywhere that's handy, singly or in tandem. Made of Alcoa Aluminum, they resist wear and corrosion, won't rust. Alumilite* finish stays good-looking and attractive with little care. Doors won't stick or warp; glass breakage is minimized. If space is no limitation, check into the large Alcoa outdoor booth; for indoor and most exterior locations, your best bet is the Alcoa "Compact" booth —only 28¾ in. square. Get all the facts by calling your telephone supply jobber, or by writing Aluminum Company of America, 1781-M Alcoa Building, Pittsburgh 19, Pa.

*Trade Name of Aluminum Company of America

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wheel run a mill to grind his corn.

This 100th man then realizes he has sufficient power to grind corn for the other 99. He says to them, "I will allow you to grind your corn in my mill if you will give me 1/10th the time you save." They agree, and so the enterpriser now makes an additional profit.

Time for Thought

■ He uses the time paid him by the 99 others to build a better house for himself, to increase his conveniences of living through new benches, openings in his house for light, and better protection from the cold. So it goes on, as this 100th man finds new ways to save the 99 the total expenditure of their time – 1/10th of which he asks of them in payment for his enterprising.

This 100th man's time finally becomes all his own to use as he sees fit. He does not have to work unless he chooses to. His food and shelter and clothing are provided by others. His mind is always working, and the other 99 are having more and more time to themselves because of his thinking and planning. For instance, he notices one of the 99 makes better shoes than the others. He arranges for this man to spend all his time making shoes, because he can be fed and clothed and sheltered from profits. The other 98 do not now have to make their own shoes. They are charged 1/10th the time they save. The 99th man is also able to work shorter hours because some of the time paid by each of the 98 is allowed to him by the 100th man.

As the days pass, another individual is seen by the 100th man to be making better clothes than any of the others. It is arranged that his time shall be given entirely to his specialty. And so on.

Through the foresight of the 100th man, a division of labor is created that results in more and more of those in the community doing the things for which they are best fitted. Everyone has a greater amount of time at his disposal. Each becomes interested, except the dullest, in what others are doing and wonders how he can better his own position. The final result is that each person begins to find his proper place in an intelligent community.

But suppose, when the 100th man had completed his trough down the mountain and said to the other 99, "If you will give me what it takes you 10 minutes to produce, I will let you get your water from my basin," they had turned on him and said, "We are 99 and you are only one. We will take what water we want. You cannot prevent us and we will give you nothing." What would have happened then? The incentive of the most curious mind to build on his enterprising thoughts would have been taken away. He would have seen he could gain nothing by solving problems if he still had to use every waking hour to provide his living. There could have been no advancement in the community. Life would have continued to be drudgery.

Community of True Profit

■ But we will say the 99 did not prevent the 100th man from going on with his thinking. The community prospered. As the children grew up, it was realized they should be taught the ways of life. There was now sufficient production so it was possible to take others away from the work of providing for themselves, to pay them, to set them to teaching the young.

As these developments continued, each member of the community, while giving something from his own accomplishments, became more and more dependent on the efforts of others. Unless envy and jealousy and unfair laws intervened to restrict honest enterprisers who benefited all, progress promised to be constant.

Need we say more to prove there can be profit from enterprise without taking anything from others, that such enterprise adds to the ease of living for everyone?

These principles are as active in a great nation such as the United States as in our imaginary community. Laws that kill incentive and cripple the honest enterpriser hold back progress. True profit is not to be feared because it works to the benefit of all.

We must endeavor to build, instead of tearing down what others have built. We must be fair to other men, or the world cannot be fair to us. . . . Sincerely, Grandfather.

(Reprinted in Telephone Engineer and Management from "Telephone Review," of New York Telephone Co.)

Divers Inspect Submarine Cables In St. Lawrence

PROFESSIONAL divers, complete with watertight rubber suits, head lamps, face plates, and swim fins, have enabled Bell Telephone Company of Canada to check its underwater telephone cables in the St. Lawrence, 175 ft. below the surface.

During the 40 min. of slack tide, divers swam along the submarine cables to check their condition, their course along the stream bed, and any hazards that might endanger their use.

International Underwater Contrac-

tors Limited, sent its divers to visually inspect Bell telephone cables between Quebec City and Levis, Canada. To do this, the divers had a decompression chamber with them, in event of "bends" from the depths in which they worked.

Prior to laying the cables originally, engineers had used sounding equipment to determine the profile of the river bed and to find what length of cable would be needed to span the river. Deviations often occur in lowering submarine cable from a barge on the surface to the river bottom.

Divers determined how close to the plotted route the cable actually lay, and whether it lay safely or was in danger from sharp, jutting rocks or overhangs or from unexpected anchoring of ships.

Unlike the "bell" diver with weighted shoes and bulbous helmets of brass who only work while vertically upright, the "tech" divers successfully inspected Bell lines by quickly swimming along the length of the cable, later giving Bell engineers a diagrammed report. (*Bell News, Montreal, Canada*).

Trouble-Cleared Card Aids Subscriber

Your telephone was reported out of order at_____ am pm

on_____. The line was thoroughly checked,

tested, and restored to normal service at _____ am pm

on_____.

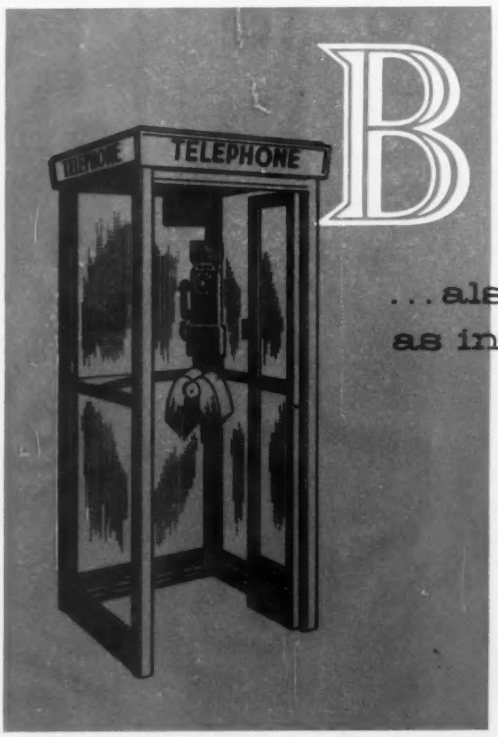
Always report trouble promptly—the sooner we know about it, the sooner we can restore service.

GENERAL TELEPHONE

STARTING in September, the General Telephone Company of Indiana has mailed "trouble-cleared" cards to subscribers reporting difficulty.

The company realized that many times testmen cleared the lines at the central office or without having to go to the customers' business or home, and the customer might well wonder if the telephone company did *anything* to eliminate the trouble.

These cards are a possible answer, and are now under test in the Fort Wayne, Ind., area. The card is mailed to the subscriber and tells him when the phone was reported out of order and when it was restored to satisfactory use. —(*Indiana General News*)



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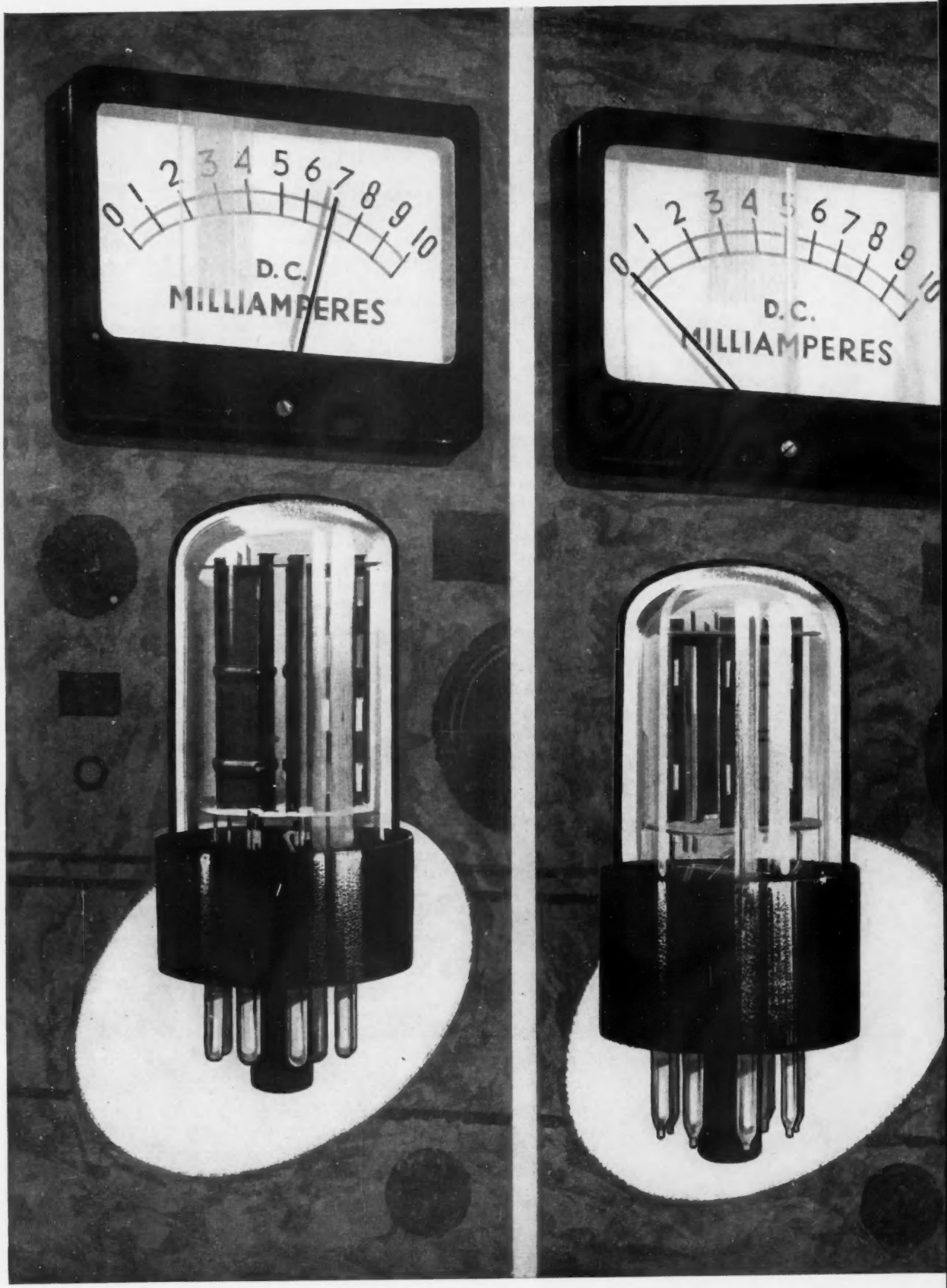
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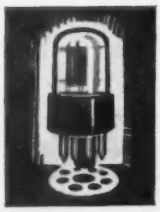
WHAT PRICE SERVICE?



...or the case of the tapered tube pins!

Keeping customers happy is a great source of satisfaction to us. That's one of the reasons why we see to it that you're never more than 24 hours away from full repair or replacement service . . . and why we initiated "plug-in" design.

But we're committed to service at *any* price for another reason . . . the deep *personal* pride we take in our equipment, and our disappointment if it malfunctions in the field.

As a case in point, take the 6SN7 and 6SL7 tubes used in some of our equipment. In 1960, the tube manufacturers changed from round to pointed base pins. Fine—except there was one unique difficulty. Since the round base pin type had been in service for a long time, replacement with pointed base pin tubes often resulted in high resistance contact. The tube socket contacts, which had spread slightly during the long life of the original tube, were not meeting the new pointed pins. So, we warned our customers, made special notes in our service manuals, and bought up thousands of the round-pin type so we could meet all field replacement requirements.

Possibly a small thing in itself, but if you take care of the small things, the big things take care of themselves—to *everyone's* benefit.

This is our way of reminding you that, when you buy Lenkurt microwave or carrier equipment, you also buy the experience, knowledge and personal attention of the entire Lenkurt Electric staff.

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(Continued from page 44)

practice, this generally is not feasible in the utility business because of investor interest in receiving dividends. What percentage should be paid out as dividends? Some companies pay a rather high percentage of earnings in the form of dividends, deliberately depriving the company of retained earnings. This sometimes is done in the hope that the high pay-out will cause the stock to sell at a higher multiple of earnings — a higher price in relation to book value than would be the case with a low pay-out.

The high premium of stock price over book value helps when it comes to new common stock financing. Other companies choose to pay out a rather low percentage of earnings in dividends.

By retaining a liberal portion of earnings and selling fixed income securities against the retained equity capital, book value per common share — and the amount earned on each share — can be increased.

In cases where the dividend a utility pays on its common stock is a highly influential market factor, the low pay-out tends to hold down the price and the premium of market price over book value.

But where the dividend has a relatively small effect on the market price of a given utility stock, a low pay-out often does not hinder the premium at which the stock sells over book value.

This raises the question as to when the dividend rate of a utility has an important influence on the market price of its stock and when it has not.

Not many years ago the size of the dividend was a major market influence in almost every utility common stock. Today the market recognizes a few Independent telephone issues as out-and-out growth stocks, useable in portfolios where capital appreciation is the prime objective and income is secondary.

As far as the investor is concerned, the dividend policy that should be followed is the one which will bring about the highest growth trend in earnings and the highest price for the stock in question.

A policy of retaining earnings that help compound the per share earning power of a company generally is a more attractive one to the investor than a policy of larger dividend pay-out and expansion financed in part by new issues of common stock. Often the increased per share earnings potential more than compensates the investor for the loss of current dividends, with the result that his over-all position is improved.

Cash generated internally from non-cash charges also will aid in the building of earnings, because it enables the company to finance expenditures without diluting earnings from the sale of securities.

Selling Over Book Value

A REAL PLUS-FACTOR contributing to earnings growth is when a company has gained the confidence of the financial community and is able to sell common stock at a substantial premium over book value. This recognition is given when a company is able to maintain the return on its common equity at a relatively high level (10 per cent) during a period of rapid growth.

The market evaluates rising earnings per share at a relatively high multiple. This causes the common stock to sell at an especially favorable price with respect to its book value, even though the dividend pay-out may be low.

This enables the company — in the already fortunate position of having good rising earnings — to take advantage of the benefits of selling common stock, when necessary, at a relatively generous premium over book.

Through this process the trend of per share earnings receives a further stimulus — the book value per share increases; the percentage return on common equity is maintained; and earnings per share are increased.

During the past few years, some of the electric utilities have had this factor working heavily in their favor. These are stocks with sharp rates of growth in earnings per share and those which sell at relatively high price-earnings ratios.

They generally achieve their favorable up-trends in share earnings by continuing to earn a full return on their increased investments in property, by plowing a liberal percentage of earnings back into the business, by maintaining the desired common equity without selling more new common shares than absolutely necessary.

A few of these stocks are currently selling more than four times book value. In the Independent telephone industry common stocks of the larger companies are selling around twice their book values.

The capital structure of your company will influence your earnings picture. A sound, well-balanced capitalization will mean financing flexibility and the assurance you will be able to raise capital under any conditions.

Study your particular problems and formulate your plans. Decide what debt/equity ratio would provide the right capital structure for you, and do not fluctuate too far from the ratios you choose.

Debt capital is much cheaper than equity money. Do not become hypnotized by this fact, and throw your capitalization out of balance. Remember, what appears cheap today might force costly financing tomorrow.

In determining the debt ratio, consider the impact on earnings during the next few years. If your earnings are volatile, you should have a lower debt ratio than a company with a more stable earnings trend.

In considering the debt segment of your capital structure, it is advisable to consider not only first mortgage bonds but also debentures (or unsecured debt). While a given company might not be willing to have mortgage debt in excess of 50 per cent of its capitalization, that same company might find it prudent to have an over-all debt ratio of 60 per cent which would include 10 per cent in debentures.

While debt issues are the favored method of financing growth, due to

the tax advantage to the issuer, preferred stock also has a place in the corporate structure and offers a compromise between debt and common equity. The obvious advantage of preferred stock is that it provides equity capital without any increase in common shares. It is generally prudent policy that preferred stock be limited to not more than one-half of the common equity.

Build Investor Status

AT THIS POINT, it might seem you are on a merry-go-round. You need profits to attract capital, and capital to make profits. It is a slow, difficult process to build investor status. You must set your goal which should be a good earnings per share trend.

Make a careful long-range forecast of your growth potential, revenue trend, construction budget, and especially your financing program. Recognize that to attract capital at reasonable rates you must maintain a fair return on your expanding rate base.

You must offer the investor opportunities comparable with those available to him through other similar, alternative investments. The larger Independent telephone companies are well aware of how the financial community is judging their securities. They appear to be making every effort to gain market recognition.

Some of the smaller companies are at the crossroads. What decision is right for you? Should you merge or consolidate into a larger system? Would an REA loan be the answer to your financing problems? Should you *go public* to seek funds?

Whatever your decision, examine every avenue before you make your move. Do not decide on a course of action merely because it looks like an easy way out.

If you think the answer to your problem is 2 per cent money, make sure the terms do not impose too stringent restrictions for future financing. Keep your capitalization goals firmly in mind and use the money wisely.

Growth and changes which are taking place in your industry are not being fully recognized by the market.

The common stocks of leading Independent telephone companies are selling at an average of 19.5 times recent earnings and have a dividend yield of 3.3 per cent. The average price-earnings ratio for electric utility stocks is 22.1 with a yield of 3½ per cent. The popularly accepted growth electric stocks sell in a range of 28 to 40 times earnings with yield under 2 per cent.

One major reason for this price-earnings differential is the relative lack of knowledge of your industry on the part of analysts. In many cases we do not seem to have enough contact with your managements. Historical data can be found readily enough, but in some cases we are virtually in the dark about your present situation, not to mention your future plans.

The analyst must have a good *feel* of each company before he can make a considered judgment regarding its stock. Make an effort to visit some financial houses, and tell your story to the analysts. Discuss your problems with them. Perhaps they can help you find solutions.

Growth is a challenge. Astute management will use it as a tool to move forward. An open door to security analysts may help.

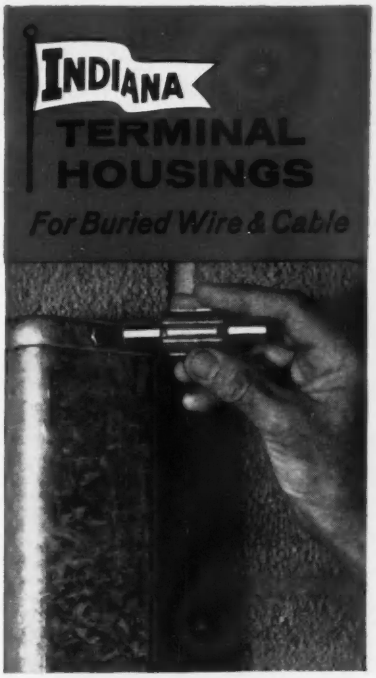
Miss Jones presented this paper at the Accounting Conference of the 1961 USITA Convention.

■ **"Herbicides — 60 Questions and Answers Concerning Roadside and Right of Way Vegetation Management"; 24 pages; 25 cents; Litchfield Hills, Audubon Society, Dept. TE&M, Litchfield, Conn.**

This booklet will answer questions regarding use of chemical herbicides. It gives engineering needs, bontanical technology, commercial techniques.

■ **"Trig, Log, Antilog, and Log of Trig Functions 6 Place Tables"; 192 pages; $1; Ottenheimer Publishers, 4805 Nelson Ave., TE&M, Baltimore 15, Md.**

All tables listed in the title are in this 2 5/8 by 5 5/8-in. indexed Vest Pocket book, with eight pages of formulas, eight pages of interpolation.



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Made of heavy gauge steel and galvanized AFTER forming, INDIANA Terminal Housings provide long-lasting protection to terminal blocks, loading coils and/or splicer. Both pedestal and pole-mounted types, designed to accommodate from one to 400 pairs, are available.

Ask your distributor about these dependable, economical housings, or write for Bulletin No. TH-101R.

INDIANA
Steel & Wire Company, Inc.
Muncie, Indiana

"Marketing and Sales"

(Continued from page 48)

offer today. This competition comes from private microwave systems, miscellaneous common carrier, private communications companies and similar organizations offering a variety of services.

To help you understand the effect this competition can have on your company, here is the sales experience of one private communications company:

This company does business in an eastern city, and they maintain a sizable sales force to call on various types of businesses and industry to sell their *internal communications.*

An analysis of 16 actual sales calls reveals 15 sales completed. In all 15 instances the number of extension telephones was reduced. And 9 of the 15 sales resulted in reduction in the number of trunks. In 6 of the 15 sales the switchboard was removed.

These results point out graphically the far-reaching effect of this kind of competition. Every one of these sales was made to a satisfied telephone customer.

It isn't necessary to point out the effect of sales of this kind on our present earnings position. But of equal importance is the fact that these customers from the moment of the sale are no longer basically customers of the telephone company. Instead they are now looking to someone else to provide their future communication requirements.

The customers can be considered lost not only for today but for some considerable time in the future. And we may possibly never recover their business.

Sales-activity of this type is not confined to the big cities. We have experienced it in a number of our exchanges recently, and all of us will witness a marked acceleration in this area of competition in the immediate future.

Maintain Public's Confidence

THE AMERICAN PUBLIC has complete confidence in the telephone industry to provide communications second to none. It's up to us to maintain that confidence. To do this we must adopt an aggressive attitude toward the development and introduction of new products and new services; understand that we are in the communications business; and constantly canvass our customer markets to sell them on our capabilities.

We must convince them we can supply all their wants and needs as efficiently and reliably as we have furnished them their basic telephone service. We must capitalize on the excellent reputation we have established, and use our experience to convince them we represent the best qualified source from which to obtain complete, modern communications, tailored to fit their individual requirements.

This means we are shifting from defense to offense. And as any sports enthusiast knows, such an effort entails basic changes. We should anticipate making those fundamental changes necessary in our business to enable us to retain our position as leaders in the communication field.

This means a break with long-established practices, habits, procedures and policies. Effecting changes in all these areas is a major problem.

Resistance to Change

ALL OF US have a certain resistance to change. Certainly, changes of this magnitude — in an industry as traditionalized in past success as we have been — will not be brought about without much thought, study and effort on the part of many people.

It is in this area of bringing about these changes that you folks in the accounting section of our business can make your greatest contribution, because the accounting function in the position it holds in any operating telephone company is probably the greatest single influence in management's final decision concerning our present and future plans.

We look to you as the authorized source for recording, analyzing and reporting our investments, our expenses and our revenue. We turn to you for guidance as to the possible effect major changes have on profit.

You have the responsibility to help your management recognize basic changes taking place in the communication field. And through your experience you must help management visualize possible effects these changes may have on the future.

The seriousness of this situation justifies the devotion of your effort to prepare for your management an analysis of the developing competitive situation to help them see the wisdom of taking a certain amount of calculated risk today to insure their future.

Introduction of any product creates certain specific problems, particularly relating to obsolescence. The introduction of an organized sales effort also creates problems, as it inevitably brings about premature obsolescence. It develops certain inventory problems, requires acceleration in your investment, requires an increase in risk capital, and will temporarily increase your installation and maintenance expenses.

All these problems may be a formidable deterrent to your management developing a responsive attitude toward the introduction of the marketing philosophy. As management's advisor on the company's financial position you should help them find the solution to these problems and aid in formulation of a policy to protect their present revenue — enabling them to participate in the profit potential this expanding communication market holds.

What kind of assistance could you furnish? With knowledge and understanding of the situation that confronts us, you could devise ways of furnishing more and better information, change the manner in which you are reporting your operations today, expand your reports to include those particularly pertinent to effectively combatting competition and enabling you to more effectively and efficiently serve your customer markets.

Wouldn't it be helpful if your management knew what percentage of your total local service rental was

generated by business customers and what percentage by residence? Wouldn't it be advantageous if they could quickly determine what portion of the business market contributed what portion of the total business revenue?

Historic data concerning the in-place life of some of the key systems, PBX and PABX boards, and the pattern of station development on such systems would place them in a position to make whatever changes necessary to realize the highest degree of effectiveness in serving the market with a minimum of risk and expense.

Perhaps it would be helpful to have analysis concerning rural customers. What percentage of rural customers in your company are properly classified as rural, and what percentage do they represent of the total?

Is there any relationship between the payment lag and the related commercial expense and your performance on the billing schedule? The promptness of your bills, or possibly a less complicated type of bill, might bring better payment results.

We have a cardinal requirement to develop a new approach to our pricing structure. As a result of careful study and analysis concerning the manner in which we record and process certain inventories, expenses and revenues, you could generate helpful suggestions — enabling us to make improvements in this total pricing area.

These are but a few areas of operations where changes in reporting plus constructive suggestions would materially assist your management. Your experience is invaluable in developing an aggressive approach to profitably serving your market.

It is mandatory in making this transition from a technically-oriented organization to a customer-oriented organization that regulatory bodies understand the changing situation and that their aid and assistance be solicited in effecting fundamental modifications we must experience.

No group in the telephone industry is held in any higher regard by our regulatory people than you folks in accounting. You carry the principal burden in all of our rate activity.

A thorough understanding of the importance of effecting a change of attitude on the type of business we are in, and your recognition of the need to introduce new products and operations, can effectively assist in several ways:

In gaining acceptance from the regulatory bodies of the need for broadening our service offerings, modifying our pricing structures and amending certain approaches to handling obsolescence, depreciation and inventory to make it possible for us to effect this transition in sufficient time to protect the industry's — and your company's — future.

Mr. Sullivan presented this paper at USITA's 1961 *Accounting Conference.*

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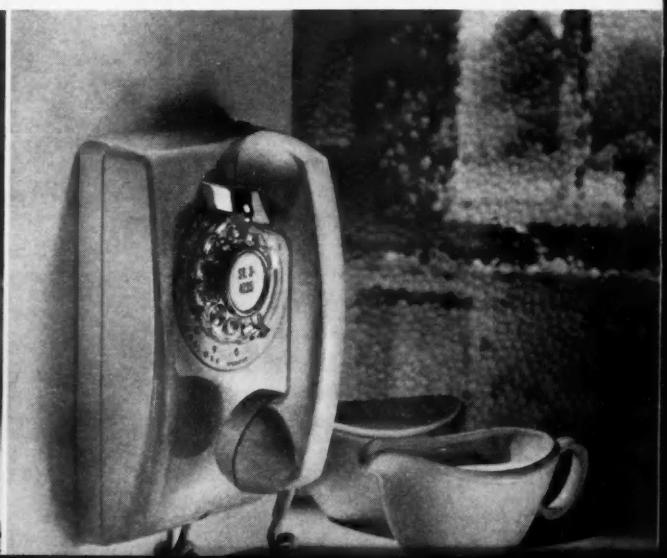

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Stress Salesmanship, P. R., Legislation At 34th Annual Arkansas Convention

Mrs. Kay G. Adair, retiring president of Arkansas Telephone Association, receives association plaque from Austin Goodman, second vice president of the organization.

C. F. Byrns, editor of *Fort Smith Southwest American — Fort Smith Times Record* speaks on "The Key to Our Future." Mrs. Kay Adair, retiring president of Arkansas Telephone Association, listens.

THE 34TH ANNUAL convention of the Arkansas Telephone Association in Hot Springs featured, among its speakers, remarks by Mrs. Kay G. Adair, retiring president of the association, and Frank LaPrade, the current president of the United States Independent Telephone Association.

"As far as facts and figures are concerned," Mrs. Adair said, "all of us have experienced growth during the past 12 months. But don't become complacent or satisfied with this growth. The total number of Independent exchanges in Arkansas is 203, with approximately 176 of these dial. Thus far in 1961 there have been 13 dial conversions, with 16 more scheduled for the remainder of the year. Fifteen more dial cutovers are on the books already for next year.

"The total number of Independent company telephones in Arkansas is now 104,000, which is more than a 5 per cent increase in one year. Of these stations 89 per cent are dial. Next year we will be well over 90 per cent dial, and the day is not far away when we can boast of 100 per cent dial telephones in Arkansas.

"As I see it, our progress in giving service to the people of Arkansas has been more than adequate in most cases. If it hasn't been in your case, I wonder if you are the person who always thinks that you have plenty of time to do these things? If so, remember 'Time is a deposit which each of us carries in the Bank of God, and no one knows how much of a balance anyone has.'

"We have much to be proud of in what we've done in the past, but at the same time we've all been guilty of procrastinating away each day and each year, until now we have one of the strangest futures imaginable staring us in the face."

The problems right now are almost a lifetime apart, Mrs. Adair added, beginning with dial conversions of the remaining manual exchanges and traveling all the way into outer space with the most amazing service concept since the telephone was invented — space communications.

In the next four years, Mrs. Adair said, each of those present would place several calls from his company to some other company or nation across the ocean, and this call will travel through outer space.

The first active satellite to be used for transoceanic communication will be launched next year. And by 1964 or 1965, there probably will be at least several of them in orbit, sending telephone calls and transmitting live television programs, Mrs. Adair commented.

She recalled remarks by Donald Power, chairman of the board and chief executive officer of General Telephone and Electronics Corporation. Power said the description "telephone business" is growing in-

Officers and directors of Arkansas Telephone Association for 1961-62 are (first row — l to r): OMER SANDERS, Yell County Telephone Company; MILTON CALDWELL, General Telephone Company of the Southwest — president; FLOYD WILSON, Pea Ridge Telephone Company; MRS. KAY G. ADAIR, Lincoln Desha Telephone Company; CARL MOORE, Boone County Telephone Company; W. S. GLASGOW, Redfield Telephone Company; T. B. HOLLINGSWORTH, Southwestern States Telephone Company. Second row (l to r): AUSTIN GOODMAN, Rural Telephone Company — second vice president; HUGH WILBOURN, Allied Telephone Company; RALPH HOGAN, United Telephone Company of Arkansas; R. L. THOMPSON, Ozark United Telephone Company — first vice president; J. D. GARRETT JR., Walnut Hill Telephone Company — secretary-treasurer; NEWTON HOVERSTOCK, Southwestern Bell Telephone Company; JACK TUCKER, Public Utilities Company.

creasingly obsolete, and we'd better wake up to the fact that we must get into the "communications business."

The Hawaiian Telephone Company is an excellent example of a company which has had to get into the "communications business." From 1878 when Alexander Graham Bell's telephone was still regarded as an amazing plaything in most of the world, an islander had recognized its value and put it to work in his village. It soon spread to all six islands.

With the help of every channel of communications available, they now have a plant worth more than $70 million and are serving more than two million customers.

But it didn't become one of the world's finest Independent companies by accident, Mrs. Adair asserted. It took telephone men with foresight to see the tremendous potential of the islands. So we must use our own foresight and make plans for the inevitable communications that are facing us in even small companies.

Dial conversions of our remaining manual offices, and space communications are only two of our problems, Mrs. Adair said. There are several others.

"The first of these is salesmanship. There are so many new services and conveniences available that I'm wondering — Do your customers know about them? Or do they know you can provide them with these services?

"Our new profits *must* come from new services. Of course, if you're satisfied with the money you're making now, you can forget about salesmanship — but I doubt if any of you are. Just remember that if we don't show these new products and services to our customers every chance we get, we can't expect them to buy.

"Which leads me into another problem we have — and it worries me because some of us don't realize its importance. I'm referring to public and community relations. In talking about public relations, someone once said: 'You've got public relations whether you want them or not. The problem is whether they're going

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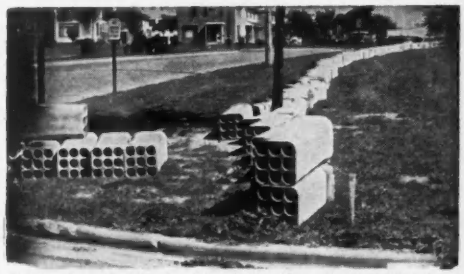

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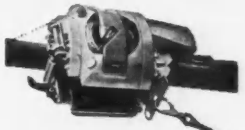
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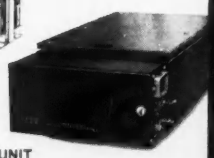

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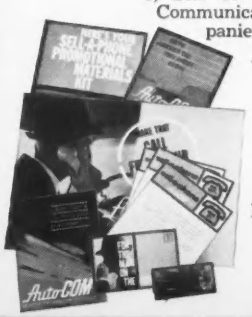

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to be good or bad public relations.'

"I'm not going to be as presumptuous as to try to give you a short course in public relations. But every time we have any kind of contact with the public in general or our customers in particular, in which we do not leave them either satisfied or contented, we have hurt our own company and even our entire industry.

"The challenges I have presented are for today and tomorrow. Difficult? Only if we procrastinate, as we have done sometimes in the past. With each day we forestall our obligations to our companies, our communities, and our state, we only make the job harder tomorrow," Mrs. Adair said.

Frank G. LaPrade, the present president of USITA said: "I'll explain a little more fully what I meant when I said that the more you do for your association, the more it can do for you.

"Almost every telephone man will agree that the USITA has had a magnificent record of accomplishment in the field of legislation. It would be hard to find another trade organization that has a better record, or even one as good. But there is always room for improvement, and the directors and officers of the national association strongly feel that future legislative activities can be even more productive and fruitful if we do certain things.

"Recently the executive committee of the board of directors considered what the USITA can do to make its legislative work more effective. The group drew up a white paper, listing several ways of accomplishing this objective.

"It was generally agreed that the national association should encourage state associations to adopt a more militant role. From many of the state telephone associations we receive the utmost cooperation. From others we receive a moderate degree of help, and from some we receive practically no help at all.

"Our relationships with all state associations are warm and cordial, and we are the first to recognize that the smaller associations that cannot afford full-time secretaries naturally are not geared to accomplish as much as are the larger associations which have executive directors.

"But in any event we are hopeful that next year and the years after that we can stimulate a more healthy and lively interest in national legislative matters on the part of state associations and their boards of directors. It is the managing bodies at the local level upon whom state association secretaries must look for direction to participate and cooperate in seeking the promotion or defeat of congressional legislation."

Frank G. LaPrade, currently president of USITA, addresses the 34th annual convention of the Arkansas Tel. Assoc.

"Parenthetically, LaPrade added, with the anti-business attitude of the present administration prevailing as it does in the national capital, it is more important than ever that we be alert to see no stone is left unturned to defeat legislation harmful to our interests specifically and to the private enterprise system generally."

ATA officers elected for 1961-62: President, Milton Caldwell, General Telephone Company of the Southwest; first vice president, R. L. Thompson, Ozark United Telephone Company; second vice president, Austin Goodman, Rural Telephone Company; secretary-treasurer, J. D. Garrett Jr., Walnut Hill Telephone Company.

Directors chosen were: W. S. Glasgow, Redfield Telephone Company; Newton Hoverstock, Southwestern Bell Telephone Company; Ralph Hogan, United Telephone Company of Arkansas; Carl Moore, Boone County Telephone Company; Omer Sanders, Yell County Telephone Company; Jack Tucker, Public Utilities Company; Hugh Wilbourn, Allied Telephone Company; Floyd Wilson, Pea Ridge Telephone Company; and Mrs. Kay G. Adair, Lincoln Desha Telephone Company, retiring president, *ex officio* board member.

C. M. Colburn Named W. Va. Assoc. President

THE WEST VIRGINIA Telephone Association met at Wheeling, W. Va., registering an attendance of more than 150 persons. Main speakers were: R. D. Kingston, commercial director of General Telephone and Electronics Service Corp.; and Ken Bulloch, cable engineer, Anaconda Cable Company.

Kingston commented on operating situations probably existing a decade from now, using the foundation of past developments in the telephone industry. Bulloch discussed buried plant and figure-eight cable.

For the 1962 term, these officers were elected: President, C. Murrill Colburn, manager, Telephone Utilities of West Virginia, Inc., Marlinton, W. Va.; first vice president, Don E. Feaster, public relations supervisor of the Chesapeake and Potomac Telephone Co. of West Virginia, Charleston, W. Va.; second vice president, LeRoy N. Darling, president of United Telephone Company of St. Marys, W. Va.; and secretary-treasurer, Robert W. Minear, secretary and treasurer of United Utilities of West Virginia, Inc., and Duncan Telephone Co., Davis, W. Va.

Chosen as directors were: Carl Ballentine, president, Shortline Telephone Co., Pine Grove, W. Va.; Gerald H. Parks, president, Duncan Telephone Co., Davis, W. Va.; Donald Roush, president, Home Telephone Co., New Haven, W. Va.

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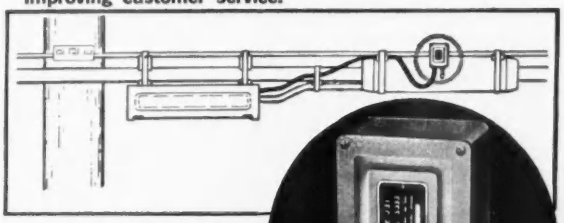

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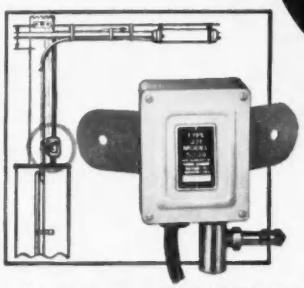

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A Division of RAILWAY COMMUNICATIONS, INC.
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Among the elected officers of the Tennessee Independent Telephone Association are (l to r): First vice president, M. V. WILLIAMS, JR., Crockett Telephone Co., Friendship, Tenn.; president, JOHN E. SEXTON, vice president of Inter-Mountain Telephone Company, Bristol, Tenn.; second vice president, RANDEL S. BURNS, Bledsoe Telephone Cooperative, Pikeville, Tenn.; secretary-treasurer, W. S. HOWARD, Millington Telephone Co., Millington, Tenn.; and third vice president, C. H. SCOTT, General Telephone Co., Cookeville, Tenn.

REA's Renshaw Challenges Tennessee's Independents To Help Unserved Rural Areas

E. FRANK RENSHAW, assistant administrator for the REA's telephone program, challenged Tennessee's telephone companies to put telephones in unserved rural areas.

Renshaw spoke at the 1961 convention of the Tennessee Independent Telephone Association in Nashville, in which 281 persons took part.

A study based on census data showed there were 34 counties in which 500 to 1,000 farms don't have telephone service, Renshaw said. In 11 more counties the report showed from 1,000 to 2,000 farms were without telephones, while an additional 5 counties had more than 2,000 farms without service.

Most of these farms without telephone service were lacking the service not because they couldn't afford it but because the service wasn't available, Renshaw pointed out.

"Here is a market potential for telephone service in the state of Tennessee that is not being developed," he said. "Here are the people REA is talking about when we point to our area coverage goal."

Renshaw said almost two-thirds of the unserved establishments outside the base rate area are located adjacent to existing lines. He said these could be connected at relatively low cost and without unnecessary delay.

"I have not even mentioned the spread of direct distance dialing," Renshaw continued. "This will become a commonplace service in rural telephony in the future, and so will many other features which now seem new and limited to certain types of subscribers or limited purposes."

He said his remarks applied not only to the extending of service to previously excluded areas but also to the improvement of existing service and equipment, such as better station equipment, more pay stations, improved directories, more courtesy and consideration for subscribers, and better telephone merchandising.

Other speakers at the convention were: W. S. Slusher, manager, Ben Lomand Telephone Coop.; N. V. Ferguson, former president of the Tennessee Telephone Association; Gale Gupton, vice president, Third National Bank, Nashville; James S. Metcalfe, public relations counselor; Richard H. Griebel, vice president, ITT Kellogg Company; Kelley McNish, president, Inter-Mountain Telephone Company; and Father Hugh Halton, O.P.

New association officers elected at this convention were: President, John E. Sexton, vice president of Inter-Mountain Telephone Company, Bristol; first vice president, M. V. Williams, Jr., Crockett Telephone Co., Friendship; second vice president, Randel S. Burns, Bledsoe Telephone Cooperative, Pikeville; third vice president, C. H. Scott, General Telephone Co., Cookeville; and secretary-treasurer, W. S. Howard, Millington Telephone Co., Millington, Tenn.

Howard Smith Elected Pres., Nevada Tel. Assoc.

MORE THAN 175 members and guests of the Nevada Telephone Association met in Elko, Nev., for the 1961 convention. Speakers included: A. J. Barran, president, General Telephone Company of the Northwest, Spokane, Wash., on "The Telephone Executive and Public Affairs"; Allan R. Stacey, vice president and manager, Sunland-Tujunga Telephone Company, Sunland, Calif., on "If You Can't Lick 'Em, Join 'Em"; Kenneth A. Mounce, manager, Arthur Anderson and Company, Los Angeles, on "Planning and Control for Profits in the Telephone Industry"; Lowell F. Wingert, vice president — operations, The Pacific Telephone and Telegraph Company, San Francisco, on "New Services"; and Donald J. Wrysinski, public relations director, California Interstate Telephone Company, Victorville, Calif., on "Let's Fight Our Own Battle."

Officers elected for 1961-62 were: President, Howard Smith, manager Nevada Tel.-Tel. Company, Tonopah, Nev.; vice president, Harold W. Rogers, manager, Churchill County Telephone & Telegraph System, Fallon, Nev.; secretary-treasurer, Mrs. Evelyn M. Gerow, secretary, Nevada Telephone Association, Las Vegas, Nev.

Directors chosen were: Ray Morgan, manager, California Interstate Telephone Company, Gardnerville, Nev.; Joseph Orchard, special representative, Bell Telephone Company of Nevada, Reno, Nev.; and Gilbert O. Thomas, vice president, Southern Nevada Telephone Company, Reno, Nev.

Olson, Brockway, Madson to AC Spark Plug Sales

THREE NEW sales engineers now represent AC Spark Plug in the field. They are Gerald B. Olson, who will work in North and South Dakota, Iowa, Nebraska, and Minnesota; Dennis G. Brockway, assigned to the eastern seaboard territory between Virginia and New England; and Martin M. Madson, representing the firm in the western section of the United States. These men will specialize in sales of the firm's mobile radio telephone.

OLSON

Olson, born in Milwaukee, joined the company in 1959, after receiving a degree in electrical engineering from the University of Wisconsin. He also has served as a maintenance engineer with AC's field service group.

BROCKWAY

MADSON

Brockway is an engineering physics graduate from the University of Toledo. He formerly was a field engineer on the firm's Titan missile guidance program.

Madson attended the Carnegie Institute of Technology, Pittsburgh, Pa., and the University of Arizona, where he received a degree in physics. He also did graduate work at New York University.

Highway Trailer Finance Co. For Installment Receivables

FORMATION of Highway Trailer Finance Company, Edgerton, Wis., has been announced by Hayward Wills, vice president of General Acceptance Corporation, and Charles N. Maybruck, executive vice president-finance of Highway Trailer Industries, Inc.

Here's a "unitized" aerial lift — vehicle and lift in one unit and at a low price. The "Hi-Arm" is ideal for overhead work — easy to maneuver, compact, lightweight, flexible, truck-mounted, hydraulic. Available in three different sizes — 28′, 32′ and 36′, with either single or tandem cab. The two-foot-square bucket has a 300-lb. capacity. Operator can step easily from cab to basket. Write for further information and specifications.

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SALES AND SERVICE IN PRINCIPAL CITIES

Over the Counter and Listed Markets

Communications Securities

Markets as of Nov. 14, 1961	DIVIDEND	BID	ASKED	LAST SALE
American Tel. & Tel. Co.	$3.60			129⅛
Anglo-Canadian Tel. Co. (Br. Col., Dom. Rep.)	1.20	45¾	47	
Bell Tel. Co. of Canada	2.20			55¼
British Columbia Tel. Co.	2.20	49½	51	
California Interstate Tel. Co.	.70	27½	29	
California Water & Tel. Co.	1.36	47½	49	
California Pac. Util. Co.	.90	27¼	27¾	
Carolina Tel. & Tel. Co.	1.60	50	—	
Central Telephone Co. (Minn., Iowa, N. C.)	.88	35½	37	
Chenango & Unadilla Tel. Co. (NY)	1.20(1)	28½	—	
Cincinnati & Suburban Tel. Co.	4.50	108½	110	
Citizens Util. Co. (Calif., Pa.) "A"	stk only	34¾	36	
Citizens Util. Co. (Calif., Pa.) "B"	.60	29¼	30½	
Commonwealth Tel. Co. (Pa.)	1.00	27½	29	
Florida Tel. Co.	1.00	32½	34	
General Tel. & Electronics Corp.	.76			26⅜
Hawaiian Tel. Co.	.54	23½	24	
Independent Tel. Corp.	none			12¾
Indiana Tel. Co.	none	38	—	
Inter-County Tel. & Tel. Co. (Fla.)	.76+stk	29½	30½	
Inter-Mountain Tel. Co. (Va., Tenn.)	.80	20	21	
International Tel. & Tel. Corp.	1.00			56⅞
Jamestown Tel. Corp.	6.00	88	—	
LaCrosse Tel. Corp.	.80	16½	—	
Lincoln Tel. & Tel. Corp. (Neb.)	3.00	71	—	
Lorain Tel. Co. (Ohio)	1.40	35	—	
Middle States Tel. Co. (Ill.)	.92	34	35	
Mountain States Tel. & Tel. (Ariz., Colo., Mont., Tex.)	.90			32⅜
New England Tel. & Tel.	1.90			48¾
North Carolina Tel. Co.	none	1⅛	1½	
Northern Ohio Tel. Co.	1.60	52	55	
Pacific Tel. & Tel. Co.	1.14			40
Peoples Tel. Corp. (Pa.)	.80	22	—	
Pioneer Tel. Co. (Minn.)	1.00+stk	37½	—	
Rochester Tel. Corp. (N. Y.)	1.10			31⅜
Southeastern Tel. Co. (Fla.)	1.00	30	32	
Southern New England Tel. Co.	2.20	56	57½	
Southwestern States Tel. Co.	1.28	36	37	
Telephone Service Co. of Ohio "A"	.36	28½	30	
Telephone Service Co. of Ohio "B"	.36	36	—	
Tidewater Tel. Co. (Va.)	1.40	27	—	
United Utilities, Inc.	.88	32	33	
Virginia Tel. & Tel. Co.	.92	22½	—	
West Coast Tel. Co. (Wash., Ore., Calif.)	1.36	40¾	42	
Western Carolina Tel. Co.	.40	12½	—	
Western Power & Gas Co.	1.00	32¾	34	
Western Union Telegraph Co.	1.40			42¾
Western Utilities Corp.	.40	17¼	17¾	
Western Light & Tel. (Mo., Kans., Ia.)	1.20	34	35	

(1) also extra cash)

(Source of Market — Dean Witter & Co.)

Gifts for the Busy Executive

HARRY KING used to be in the lithography and advertising businesses. Now he runs Automated Gift Plan, Inc. How he decided to make the switch is an interesting tale.

KING

Like many other businessmen, he wanted to give a gift to his clients during the Christmas holidays. His gift list was large and unwieldy. Often he felt his gifts were merely duplications of other gifts given by other firms to the same customer.

So he developed the Gift-Bookard idea and began his own company, enabling busy executives to select gifts from a 12-page 10-by14-in. presentation folder. This allows the recipient to choose the gift he wants, and saves time all around for giver and receiver alike, simply through the mailing of a marked card.

Gift-Bookards are available in eight price ranges, showing in full color from 20 to 24 gift items for men and women — with no prices listed.

Contact Automated Gift Plan, Inc., 80 Park Avenue, New York 16, N.Y.

GE Names Chaney Mgr. MTS Engineering

WILLIAM G. CHANEY has been appointed manager of mobile telephone systems (MTS) engineering and personal communications engineering for General Electric's Communication Products Department, Lynchburg, Va. Chaney will be in charge of engineering for G-E's full simultaneous duplex mobile dial telephone units and other MTS products. He also has design responsibility for miniaturized personal communication equipment including the company's Voice Commander and Voice Director systems.

CHANEY

Chaney joined General Electric in

1960, after 13 years of telephone engineering experience with the Bell Telephone Co. of Pennsylvania and the AT&T in New York City.

Ernest S. Germain Dies, PR Dir., Calif. Water & Tel.

ERNEST S. GERMAIN, 65, director of public relations of California Water & Telephone Company, died on October 21 while vacationing at his daughter's home in North Palm Beach, Fla. Born in Olean, N.Y., he had made his home in San Francisco, Calif., for the past 10 years.

Mr. Germain had served as director of public relations for California Water & Telephone Company and had coordinated public and employe relations for associated companies, The Southwestern States Telephone Company and West Coast Telephone Company, since 1951.

GERMAIN

Previously, he had worked with the Stromberg-Carlson Company for 15 years as sales manager for 11 western states. During his years with Stromberg-Carlson, he received a certificate of commendation for outstanding service to the U. S. Navy during World War II.

A. N. Mason Dies, Plant Mgr. For Carolina Tel. & Tel. Co.

ALBERT N. MASON, general plant manager for Carolina Telephone and Telegraph Company and the Home Telephone and Telegraph Company of Virginia, died October 22 in Wilmington, N. C. He was 46.

Born in New Bern, N. C., he was graduated from New Bern High School and began his telephone career in 1935 with a telephone construction crew. In 1938 he was named manager at Emporia, Va., and in 1942 became manager at Fort Bragg, N. C.

After service in World War II, he returned to the telephone company in 1945. He was appointed maintenance supervisor at Tarboro in 1946, Rocky Mount district plant manager in 1953, maintenance supervisor of central office equipment, and construction supervisor at Tarboro in 1954. In 1956 he was named acting general plant manager, and in 1957 Mason was appointed general plant manager.

Dellman O. Hood Dies, Dir. of Ore.-Wash. Tel. Co.

DELLMAN O. HOOD, a director of the Oregon-Washington Telephone Company, died October 28 in White City, Ore. He was 74.

Mr. Hood was for many years also a director of the United States Independent Telephone Association and a chairman of the USITA Small Company Settlements Committee. From 1942-48 he was president of the Oregon-Washington Independent Telephone Association, and a director since then.

Mr. Hood started his business career in 1903 as an operator for the Postal Telegraph Company in Charlotte, N.C. Later he became a morse operator for the Associated Press. He served in the U.S. Signal Corps in World War I.

In 1920 he, with his brother Ernest, started the brokerage firm of Hood Brothers in Portland, Ore. Ten years later he entered the utility business with the purchase of telephone properties at Eagle Point, Ore.

This he built up as the Columbia Utilities Company to more than 5,000 stations by 1959, when he merged his holdings with the Oregon-Washington Telephone Company and became a director of that company.

At one time Mr. Hood also was a member of the Port of Portland Commission, and served as budget director under Oregon Governor Charles H. Martin.

Mr. Hood is survived by his wife, Elizabeth.

Douglas R. Hayward New PR Director at Lenkurt

DOUGLAS R. HAYWARD has been named director of public relations at Lenkurt Electric Co., Inc., San Carlos, Calif. He succeeds Thomas D. Boyd, who resigned to become director of public relations of Granger Associates, Palo Alto, Calif.

Hayward joined Lenkurt in 1960 as public information supervisor. Previously he had been public relations assistant at the San Francisco Port Authority for three years, after several years of experience as a newspaper reporter and radio news editor in northern California.

During military service, 1953-55, he was an enlisted public information office editor in the 44th and 2nd Infantry Divisions and for a short time served as assistant editor of a Ft. Lewis, Wash., weekly newspaper.

He majored in journalism at San Francisco City College and San Francisco State College. He is a member of the San Francisco Bay Area Publicity Club, the Maritime Writers Association, and the San Francisco Press and Union League Club.

Gen. Dy. Tel. Names Meyers Assistant Chief Installer

CURTIS B. MEYERS has been appointed assistant chief installer of General Dynamics Telecommunication. He will assist George H. Christiansen, chief installer, in supervision of installation personnel and will make field inspections.

MEYERS

Meyers joined the company in 1955 as an installer. Later he was promoted to installation foreman and worked on several large XY dial installations including Casey, Ill., and Middleton, Wis. Recently he moved to a service engineering post and assisted customers in the Kansas City territory.

He has more than 20 years of experience in telephone communications. He started with the Florida Telephone Corporation in 1940. From 1941-45, he served with the U.S. Army in France and Germany as a communications chief with the Third Division. On completion of military service, Meyers returned to the Florida Telephone Corp. and advanced to chief switchman.

He is a member of the Independent Telephone Pioneer Association.

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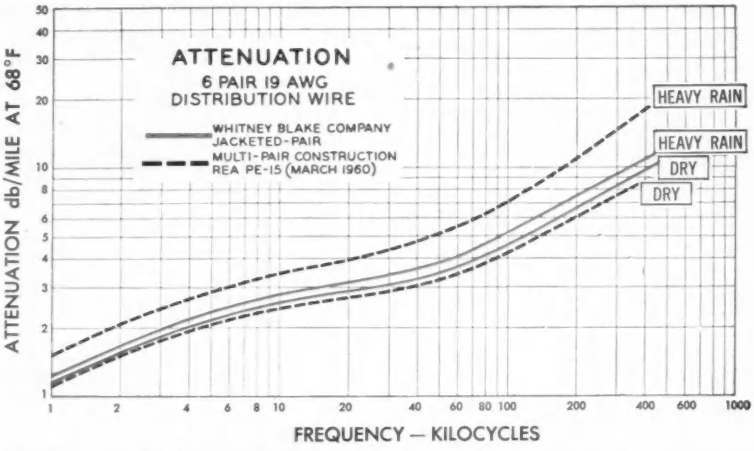

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R. E. Vaughn, Sales Mgr. For Leland Mast Directory

ROBERT E. VAUGHN is now regional sales manager for the Leland Mast Directory Company, Wilmette, Ill.

Vaughn joined the company in 1960 as a sales representative, having worked with the General Telephone Directory Co. as sales representative and sales supervisor in Minnesota from 1954 to 1960. Previously he worked with Brandtjen & Kluge, Inc., St. Paul, Minn., as export manager and personnel manager.

VAUGHN

Born in Minnesota, he attended St. John's University. He will headquarter in St. Paul.

Herr, Exec. VP, Gen. Mgr. At United Elec. Controls

STEPHEN T. HERR of Lexington, Mass., has been appointed executive vice president and general manager of United Electric Controls Co., Watertown, Mass.

With United Electric since 1949, Herr has worked in the instrument and control field. Previously he was with Brown Instrument Company and The Foxboro Company. He is an engineering graduate of Carnegie Tech.

HERR

New Management Heads Erco Radio Laboratories

ERCO RADIO Laboratories, Inc., Garden City, N. Y., has announced the transfer of ownership in the corporation to a new management.

Operations of Erco will now be directed by Sam A. Spina, chairman of the board; Alfred Lueder, president; Thomas Goodwin, executive vice president and chief engineer; Gilbert C. Leib, assistant secretary and assistant treasurer.

TELEPHONE MARKET PLACE

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REBUILT DIALS, A.E. 24 — WESTERN ELECTRIC 25-HB — or 26-A. $2.50 EA.

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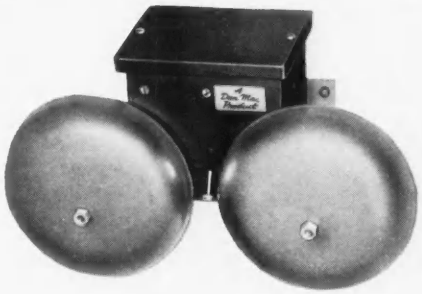

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Telephone Engineer & Management will send a free copy of the new "TELEPHONE HANDBOOK FOR PLANTMEN & MANAGERS" with each gift subscription ordered through December 15, 1961.

TERRIFIC BUYS OFFERED IN GOVERNMENT SURPLUS AND TELEPHONE EQUIPMENT

Electronic Secretary AUTOMATIC TELEPHONE ANSWERING and RECORDING

"Answers Your Telephone 24 Hours of the Day"

Quick Facts:

- Receives calls, accepts orders, makes appointments, records names, telephone numbers and messages.
- Holds calls. Transfers calls to other numbers.
- Installed in five minutes. Can be located anywhere.
- Simple to operate. Just flip a single switch.
- Does not interfere with normal operation of the phone.
- Requires minimum maintenance.

Size, 9" x 18" x 14", Shipping weight, 60 lbs.

(ITEM #TE748)

ORIG. COST TO TELEPHONE CO'S. OVER $400.00

Sale $159.50 F.O.B. Lincoln

● (Item #TE748) -- Unique, fully automatic telephone answering unit. This is the genuine "Electronic Secretary" installed by leading telephone companies in many businesses and offices throughout the U.S.A.

● When connected to any telephone line, this unit will automatically answer the phone and then by means of wire recording, accept orders, messages, etc. A new source of revenue for operating companies.

● This unit will repay its modest cost many times over in any busy office, business, etc. Ideal for anyone that must leave unattended phones. Will handle before and after hours office calls, weekend and holiday calls, etc.

● Operation is as follows:

(a) - When a person leaves an office or home, he throws a switch to place the "Secretary" in readiness to accept all incoming calls.

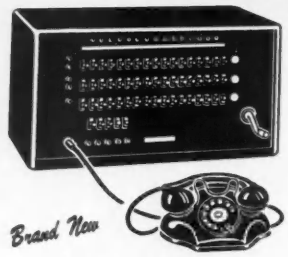
(b) - When the telephone rings, the unit comes into operation and by means of a prerecorded message, advises the calling party that the called party is not in, and instructs the calling party to either call back at a later time or to state his message which will be recorded.

(c) - When the called party returns, a switch can be thrown and all recorded messages can be played back. When the recorded information is no longer needed, it can be "erased" and the recording spool used over.

● The unit consists of (1) Precision wire recorder which starts and stops automatically when calls come in. (2) A hi-quality record machine that plays the prerecorded message into the telephone line. (3) An ingenious system of high quality relays that connect the record player and recorder in proper sequence and disconnect the line at the completion of each call.

● Full installation and operation instructions furnished. Requires only simple two wire connection to telephone line. Installation wire furnished.

C.B. CORDLESS, 12-LINE, 5-TRUNK SWITCHBOARD



Brand New

Genuine KELLOGG Switchboard

● This is one of the most remarkable buys we have ever offered. These deluxe boards were made to rigid government specifications and have standard circuits and key arrangements.

SPECIFICATIONS

- Attractive walnut finish wood cabinet
- 12-lines, 5 trunks, 24-volts
- All necessary relays self contained
- Fully wired, ready to use.
- Size 25" x 12" x 12", Net wt., 100 lbs.

COST GOVT OVER $450.00

(ITEM #TE701)

Sale $79.50 F.O.B. Lincoln

● This cordless board is ideal for motels, stores, factories, etc. It may be used on either manual or dial C.B. systems. It will handle up to 12 private telephones and permit up to 5 conversations at one time. (It is equivalent to a 5-cord type board). As many as 5 trunks to the C.O. may be connected. Full supervisory lamps on all trunks and lines.

Mode of Operation

● A cordless board is similar to a crossbar system. Each telephone line is wired to 3 vertically associated keys in such a manner that the line may be connected to any trunk (there are 5) by simply throwing the key up or down.

● 2 private telephones are connected together by simply operating the respective keys of each line so they are placed on the same line. The private telephones are connected to the C.O. trunk lines by operating both the trunk key from the C.O. and the corresponding trunk key on the private line. Signalling on any line is accomplished by throwing the bottom key down (it is non-locking in the down position).

● A TELERING ringer (price $12.95) can be used to furnish ringing power. A hand generator is built into the unit and may be used if so desired. Incoming calls from C.O. trunks or from private telephones are indicated by lights above each trunk or line.

● NOTE: We can furnish 12 Dial Telephones (ITEM #TE716) for use with above board only $59.50 extra.

3-WAY TELEPHONE DESK SWITCH

MASTER and 3 SLAVES APPLICATION

ORIG. COST $10.95

(ITEM #TE741)

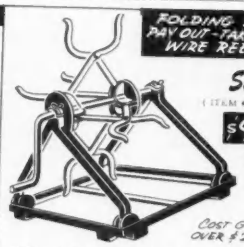
Sale $1.97 F.O.B. Lincoln

● ITEM #741 -- Standard 4-way switch. Permits connection of a single telephone to any one of 3 incoming trunks from the Central Office. Also very useful for private telephone systems.

● One of these switches and four telephones can make up a master set with 3 slave units enabling the boss, foreman, etc. to talk privately to anyone of 3 other department telephones as desired.

● Attractive, smooth, quick acting switch. Fastens to underside of desk, to wall, to equipment, etc. Black finish. Installation instructions furnished. Size 4 1/4" x 1 5/16" x 3 7/8". Shipping weight 2 lbs.

FOLDING TYPE PAY-OUT-TAKE UP WIRE REEL



Sale

(ITEM #TE735)

$9.91 F.O.B. Lincoln

COST GOVT OVER $25.00

● Government surplus, collapsible, pay out-take up wire reels. Use for stringing or folding up telephone or power wire, barbed wire, etc. Compact easy to use. Can be set up or folded down in a minute.

● Excellent unit for construction companies, telephone companies, farmers, electricians, etc. Make neat, factory type coils. Handles coils 10" to 16" in diameter. Size (set up) 28" x 28" x 26". Shipping weight 42 lbs.

LINEMANS CLIMBERS

● Finest quality, brand new, leading make, gov't surplus climbers. Complete with first grade leather, heavy duty pads and straps. Shpg. wt., 6 lbs.

● Power companies, farmers, logging companies, TV antenna installers, phone companies, etc., save over 50%.

(ITEM #TE736)

Sale $7.41 F.O.B. Lincoln

LINEMANS BELT & SAFETY STRAP

COST GOVT $29.50

(ITEM #TE703)

Sale $10.29 F.O.B. Lincoln

● Made of select, first quality harness leather with 4" cushion, 1 1/2" wide loop and body strap. Solid steel "D" rings, 3 tool loops, tape thong, plier pouch. Safety strap is 2" wide, with double tongue buckle and solid steel snaps. All metal fittings are heavily galvanized and pass all safety tests. Shpg. wt., 7 lbs.

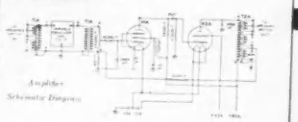
TELEPHONE and AUDIO PORTABLE AMPLIFIER

COST GOVT $155.00

Sale

(ITEM #TE2238)

$14.91 F.O.B. Lincoln



Amplifier Schematic Diagram

● Compact dual battery type portable amplifier. Consists of two complete and separate high gain audio amplifier channels with associated control, gain and frequency equalizing network. Operates from small self contained dry cell batteries (1.5-volts and 90-volts).

● This unit has many uses in telephone plants as a 1000-cycle audio oscillator, as a repeater, as a cable fault location high gain amplifier, etc. Furnished with each unit is a 1000-cycle network for converting one channel to 1000-cycle oscillator. An outstanding buy. Government surplus, new and perfect.

(1) Cable Fault Amplifier
(2) Telephone Line Repeater
(3) Transmission 1000-cycle Oscillator
(4) Line Monitoring Amplifier

● Unit is furnished complete with tubes, carrying straps, etc., less batteries. Dimensions 15" high, 12" wide, 8" deep. Shipping weight 27 lbs.

6-PAIR U.G. or AERIAL CABLE

(ITEM #TE004) 6 PAIR

● Genuine government, 6-pair, rubber insulated color coded #19 Copperweld U.G. or Aerial Cable. Has heavy neoprene jacket. Very rugged, suitable for buried or aerial service. Excellent for heavy drop wire runs, buried cable runs, building wiring, etc. Outside diam., 9/16". Wt. per 100 ft., 19 lbs.

** Available in random lengths (100 to 500 ft.) lgths. ... per foot 4¢ F.O.B. Lincoln

** Available in 1000 ft. lgths. with factory, water tight splices. ... per foot 5¢ F.O.B. Lincoln

GLASS INSULATOR BUYS

● Recovered, highest quality glass insulators. All in good shape, priced to save you money.

No. 16 LONG DISTANCE
Diameter of grunve.....1/8"
Quantity per box.....50
Weight per box.....53 lbs.
Minimum order.....500
Additional: Multiples of 50

3¢ EA. F.O.B. LINCOLN

(ITEM #TE001)

AC POWER RINGING CONVERTERS

Model A, 20-watts
LIST $90.00

Model B, 7.5-watts
LIST $78.00

Model A (ITEM #TE714)
Sale $24.95 F.O.B. Lincoln

Model B (ITEM #TE743)
Sale $15.91 F.O.B. Lincoln

● Convert 115-volt, 60-cycle, AC power to 90-volt, 20-cycle ringing current. Excellent units for use on private telephone systems. Permit pushbutton ringing. Give loud, clear rings. Can be left plugged in at all times. Most modern units available.

● Model A, 20-watt size, 5 3/4" x 9 5/8" x 14 1/8". Shipping weight 40 lbs. Model B, 7.5-watt size, 6 5/8" x 5 1/8" x 11 1/4". Shipping weight 22 lbs.

HARMONIC RINGERS

● Synchronomic ringers designed for use in Western Electric #302 telephones.

● Available in 16, 30, 42, 54 and 66-cycle frequencies. Nearly new, all perfect.

(ITEM #TE002)

Sale 89¢ F.O.B. LINCOLN

SHIPPING WT. 1 LB.

4-WAY EXPANDING ANCHORS

LIST $3.95

(ITEM #TE003)

Sale $2.15 F.O.B. Lincoln

● Genuine CHANCE. 90 sq. in. expanded area. Use 1/2, 5/8 or 3/4" diam. rod (not furnished). Wt. 11 lbs.

WESTERN ELECTRIC DIAL TELEPHONES

MULTI-LINE (3 or 5-LINE) MODELS

3-Line Model (ITEM #TE749)
Sale $13.49

5-Line Model (ITEM #TE750)
Sale $14.49

Prices F.O.B. Lincoln

● Genuine Western Electric, multi-line, dial telephones with either 4 or 6 buttons for switching a single telephone to any one of 3 or 5 incoming telephone lines. The extra button is used for buzzer circuits to other offices or stations for intercom purposes, etc.

● These fine units can be used for either answering extra incoming lines or answering a single line and use the extra buttons to connect to other phones in the same building on an intercom basis.

● W.E. Model 302 phones, excellent condition, at $6.25 each F.O.B. Lincoln. (Item #TE716)

6 and 12-VOLT BATTERY WORM GEAR WINCHES

SPECIFICATIONS

- Load capacity ... @ 6-volts, 1200 lbs. @ 12-volts, 2000 lbs.
- Cable speed ... @ 6-volts, 4 ft. per min. @ 12-volts, 8 ft. per min.
- Drum capacity ... 80 ft. 1/4" cable 38 ft. 3/8" cable
- Complete with reversing switch
- Remote control model available
- Overall size, 19" x 15" x 8 1/4"
- Shipping weight, 60 lbs.
- Shpg. wt. (remote model) 64 lbs.

MOTOR ALONE COST GOVT OVER $275.00

(ITEM #TE321) With standard switch control **$84.50** F.O.B. Lincoln

(ITEM #TE324) Remote Control Equipped Unit **$96.50** F.O.B. Lincoln

● Ideal for rural installation trucks. Make up your own boom trucks.

● The low price at which this winch is being offered is made possible by a carload purchase of worm gear winch units from a leading manufacturer and large quantity purchases of battery operated gear motors from government surplus.

● The battery gear motors are precision built, fully ball bearing equipped units with the finest steel cut, heat treated gear train. These motors develop tremendous torque at 6 or 12-volts DC. The gear motors are connected to the winch with finest roller chain drive. The winch motors are fully reversible and the current demand is very reasonable.

● Order directly from this advertisement or send for FREE 64-page catalog. 100's of Bargains in Government Surplus and New Equipment.

● Check with order unless well rated in D&B. 25% deposit required on C.O.D. orders.

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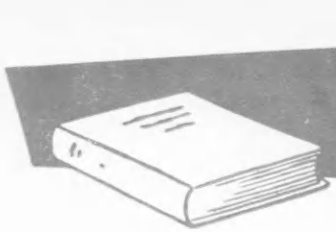


THE BACK OF THE BOOK

By JOHN G. REYNOLDS

Initiative Still Counts!

AMONG the duties of Daniel Cifor, 19-year-old messenger for the Lockheed Aircraft Corp., Burbank, Calif., was the delivery of boxes of staples.

Few would think the chore represented a giant step toward getting ahead.

But Cifor was curious. The boxes were marked "5,000 staples" per container. He wondered if there were that many in each box.

So he counted the staples . . . . counted them during his lunch hours for a full week. And he found what he was seeking — a shortage.

He found 104 less staples per box than marked — a fact later substantiated by Lockheed's Material Department. It was learned that the supplier had erroneously recalibrated its automatic counting devices after changing to a heavier wire in the production of staples.

Since Lockheed's California division buys approximately 50 million staples a year, the 2 per cent shortage unearthed by the messenger amounted to 1-million staples.

The supplier made up the shortage pronto.

It looks as if enterprising Daniel Cifor is going to be with Lockheed a long time. They liked his curiosity.

Price of Welfarism

FROM *U. S. News & World Report*: "Nearly 132 billion dollars — That's what it cost taxpayers last year to run the federal, state and local governments. And the load keeps rising. The private economy is growing too, but not as fast as taxes. The average man works a fourth of his time to pay his tax bill."

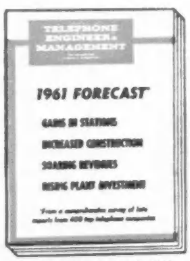
All in all, the magazine goes on to point out, the tax burden today is close to 30 per cent of the entire national output — 20.4 per cent of that output being taken by the federal government, and 8.2 per cent by state and local government. Percentagewise, state and local tax collections have shown the most rapid rise in late years. But the possibility of further increases in the federal tax load is facing us.

What's the solution? There are various answers, some of a highly technical nature. But one thing is sure — unless non-essential spending is eliminated, at all levels of government, the time will come when you'll be working a third, or a half, or two-thirds of your time to pay the cost of government. This is the price of having government take care of you from cradle to grave.

A Thneak Thief

KEN GILLETTE of Communication Equipment and Engineering Co., Chicago, sent us this story about the editor of a small town newspaper who ran the following notice to explain the lack of the letter "s" in all copy appearing in the issue:

"Latht night thome thneaking thief thtole into our compothing room and pilfered the cabinetth of all the etheth. We take thith opportunity to inform our readerth that we are extremely thorry for the inthipid appearance of todayth paper. We altho withh to thtate that if we catch up with thith thcoundrel, the dirty thnake in the grathth, in or near our print thhop, it will be our complete and thorough thatithfaction to thoot him!"



THE TELEPHONE INDUSTRY MAGAZINE

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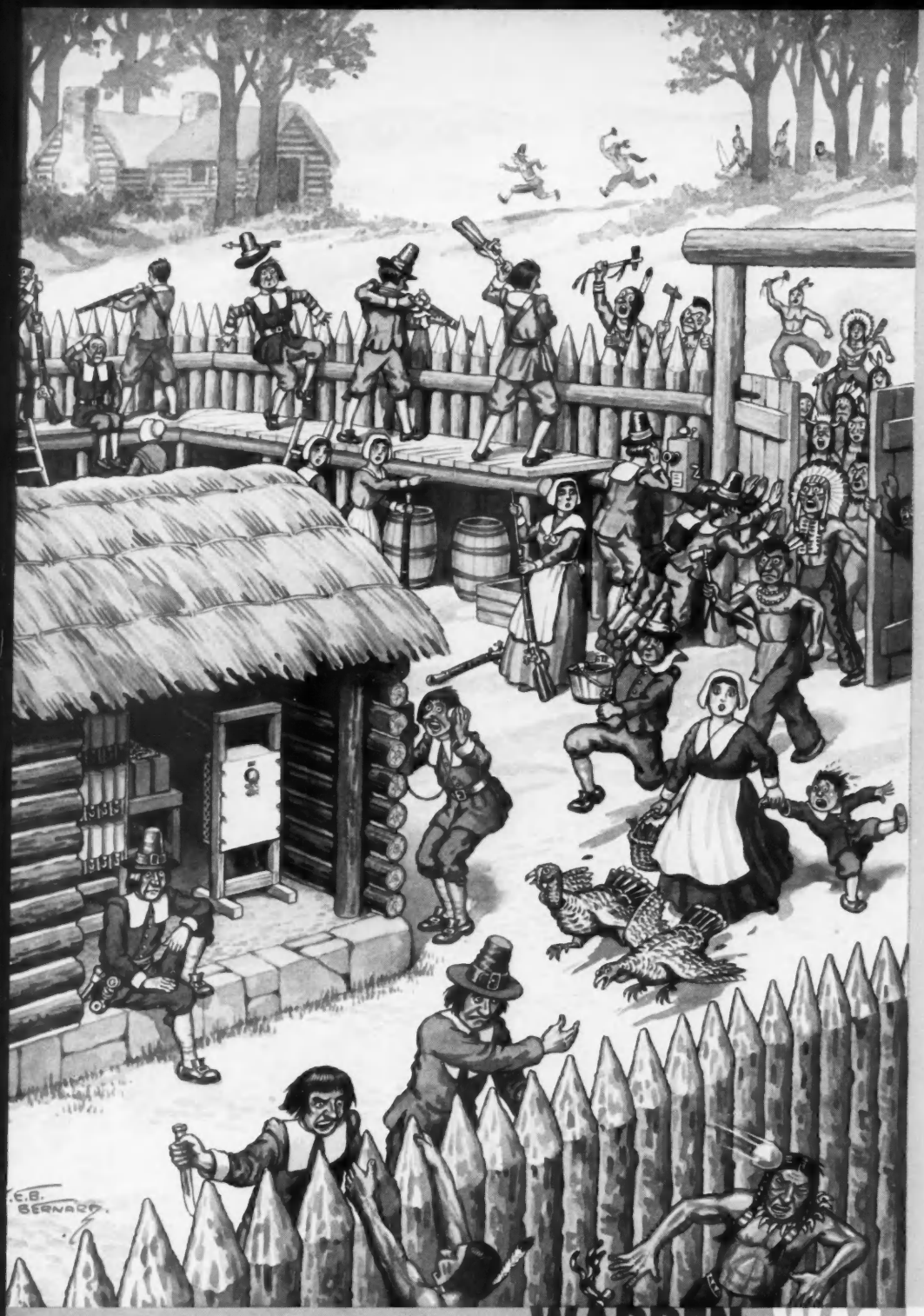


NO. 10 OF A SERIES

* According to our artist, there were unexpected guests at the first Thanksgiving. They wore feathers in their caps and carried their own carving utensils. They burst in on the Pilgrims with fierce, rude yells (even as your neighbors — and ours) without even having had the decency to phone ahead.

Which brings us to the commercial — and incidentally, to what we consider, most distinctly, a feather in our cap.

We mean the Warren Transistor Power Pack — a complete, transistorized power, ringing and tone supply for which full many a PBX, PAX, and PABX installation would be justified in giving thanks.

Why?

Because a Warren Transistor Power Pack refuses to age. There is no maintenance problem . . .

Because no standby equipment is needed where batteries are used in PBX (both ringing and tone generators are dc operated) . . .

Because initial cost is lower than the cost of buying individual components separately . . .

Because this unit packs more power (up to 20 amps) in less space than any other power pack available . . .

Because Warren offers a complete line to suit every requirement, including seven 24-volt models and seven 48-volt models, none of which look much like the one in the drawing. (We've corrected the situation below.)

Please write for complete information.

WARREN PRODUCTS.....

TYPE TFR — Transistor Float Rectifiers
TYPE TPP — Transistor Power Packs
TYPE TMR — Transistor Ringing Generators (25 & 50 Watt)
TYPE TRT — Transistor Ring Talk Power Supplies
TYPE TTG — Transistor Tone Generators
TRANSISTOR TONE LINK EQUIPMENT

FOR REPRINTS OF THE SERIES WRITE WARREN MANUFACTURING CO.

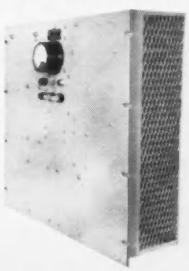
WARREN
MANUFACTURING COMPANY
Littleton, Massachusetts
Tel. HUnter 6-3511

WARREN MANUFACTURING WM

JUST FOR THE RECORD..... **WARREN WAS FIRST WITH A COMPLETE LINE OF TRANSISTORIZED POWER PACKS* FOR THE TELEPHONE INDUSTRY**

(AND WITH SILICON RECTIFIERS, YET!)

This is what a 48 TPP 20 48 volt, 20 Amp Transistor Power Pack really looks like.



FIRST IN TRANSISTOR PRODUCTS FOR THE TELEPHONE INDUSTRY

Nicopress insulated splicing sleeves for rural and urban multi-distribution wires

With this Nicopress D17 Tool and Nicopress Insulated Splicing Sleeves there is no need to tape splices to keep out moisture. The plastic sleeve within the outer copper jacket fully insulates the inner conductivity splice and seals the splice from air and moisture.

Nicopress Sleeves are available in three sizes for multi-distribution wire: 19 AWG, 22 AWG, and 24 AWG. One Nicopress D17 Splicing Tool fits all three sleeves.

The National Telephone Supply Company

5100 SUPERIOR AVENUE • CLEVELAND 3, OHIO

Canadian Mfr.—N. SLATER CO., LTD., HAMILTON, ONT., CANADA

Export Distributor—INTERNATIONAL STANDARD ELECTRIC CORP., NEW YORK, N. Y.

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